



326, boul. Saint-Joseph Est, bureau 100 Montréal (Québec) Canada H2T 1J2 Téléphone : (514) 849 7900 Télécopieur : (514) 849 6357 sec@centrehelios.org www.centrehelios.org Setting the Fixed Charge for Residential Rates

**Expert Testimony of Jim Lazar** 

for the RNCREQ

R-3677-08

Régie de l'énergie

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## Overview

HQ currently has a significantly higher fixed charge (also called a Basic Charge or Customer Service Charge) than many other low-cost electric utilities in Canada and the United States. It has based that fixed charge on an assessment of costs that include a number of costs largely unrelated to the number of customers served, including the operation of the customer call center and the provision for uncollectible bills. When these costs are removed from the calculation, the appropriate cost-based fixed charge is significantly lower, and in line with those charged by other low-cost utilities.

I have compared the HQ fixed charge as both an absolute dollar amount and as a percentage of the total average residential bill against two samples of electric utilities. The first sample consists of the ten U.S. utilities selected by HQ in its evidence, and the second is a sample of hydro-dependent low-cost utilities in the U.S. and Canada. In both cases, the HQ fixed charge is significantly higher, in both absolute dollar terms and percent-of-bill terms than the comparable utilities.

I discuss the very different methods by which the Washington and British Columbia regulatory commissions arrived at the much lower fixed charges for the utilities under their jurisdiction. While the methods are different, the end results are very similar.

The calculation Mr. Raphals has presented, which shows a more appropriate fixed charge of \$.28/day, is both cost-based and more consistent with those charged by other utilities.

I recommend that the HQ fixed charge be reduced to a cost-based level.

## 1 Background and Experience of Jim Lazar

Jim Lazar is a consulting economist in private practice in the area of utility rate and resource planning since 1982. His first involvement in utility ratemaking was in 1974, as an undergraduate student, when he and classmates proposed an inverted block electric rate design for the Bonneville Power Administration, a federal power marketing agency supplying power from federal hydroelectric dams and other resources. Twenty-five years later, Bonneville is currently (2007) in the process of establishing tiered wholesale rates for its utility customers.

In 1978 - 1980, Mr. Lazar was involved in a protracted generic rate investigation convened by the Washington Utilities and Transportation Commission. His testimony in that proceeding advocated "baseline rates" in which the initial block of residential usage would be based on the cost of low

cost hydropower resources, with increasing blocks applicable to newer thermal power supplies. The Commission adopted that concept, and each of the utilities regulated by the WUTC has had inverted block residential rates ever since. These rates are discussed in greater detail in the section of this report on Current Tiered Rates in the West.

In 1980 - 86, Mr. Lazar testified before the Idaho Public Utilities Commission. Largely as a result of his testimony, Idaho adopted inverted block residential rates for Idaho Power and Avista Utilities, and these remain in effect. In 1986 - 87, Mr. Lazar testified in Arizona on the subject of residential rate design. Arizona adopted inverted rates for Arizona Public Service Company at that time, and these rates remain in effect.

In 1979 – 88, Mr. Lazar testified in Oregon on the subject of residential rate design, encouraging adoption of inverted block rates. Oregon adopted inverted rates at that time, and these rates remain in effect for Pacific Power and Portland General Electric.

In 2003 and 2006, Mr. Lazar testified in Manitoba on the subject of residential rate design, encouraging adoption of inverted block rates. The Manitoba Public Utilities Board has directed Manitoba Hydro to present inverted rates, those rates have now taken effect..

Mr. Lazar has also testified on integrated resource planning, energy conservation program design and cost-effectiveness, and other regulatory topics. He has served on the faculty of the Western Consumer Utility Training Institute, been a speaker at conferences convened by both the National Association of Regulatory Utility Commissioners and the Western Conference of Public Service Commissioners.

Mr. Lazar is a Senior Advisor to the Regulatory Assistance Project, which provides technical assistance to utility regulators around the world. He has worked in Brazil, Namibia, Mozambique, India, Indonesia, Mauritius, China and The Philippines in association with RAP. He is currently preparing a national energy efficiency strategy for the country of Samoa. In addition, he has worked with RAP on the New England Demand Response Initiative and the Mid-Atlantic Demand Response Initiative, and on revenue decoupling proposals in several U.S. states.

## 2 HQ Fixed Charge Is Higher Than Other Similar Utilities

The HQ fixed charge, approximately \$12 per month, is significantly higher than those of most large electric utilities in North America. HQ presented such a comparison, in HQD-12, Document 1, at Table 20, showing a sampling of utilities, and comparing the fixed charge amount.

The comparison they present tells only part of the story. Some of the utilities in this sample are very high-cost utilities, and some are low-cost. Some have very dense urban systems (with other utilities serving the suburban and rural areas), while HQ serves the entire province, including urban, suburban, and rural consumers.

I have elaborated on their presentation in two different ways. First, I have added average monthly bill data to the sample of U.S. utilities, to see how the HQ fixed charge compares, as a percentage of the average monthly bill. Second, I have collected a sample of low-cost utilities with significant hydro resources, and compared these to HQ existing rate design to the cost-based fixed charge of 28¢ identified by Mr. Raphals.

The following table includes data for the same U.S. utilities used in the HQ comparison, but including the average total rate and the average bill amount. This table demonstrates that these U.S. utilities have an average fixed charge of \$7.15 per month, which is approximately 8.3% of the typical average monthly electric bill. By comparison, the HQ monthly fixed charge is approximately 11.7% of the average monthly bill. The proposed HQ monthly fixed charge discussed by Mr. Raphals is \$.28 per day, or about \$8.40 per month– still slightly higher (at 27 October exchange rates) than the average of the U.S. utilities used by HQ. In addition, at 8.1% of the average monthly bill, it would be almost identical to the average for these U.S. utilities.

		С	Fixed Charge		2006 USEIA Average	20	006 USEIA Average	Fixed
		Pe	er HQD-	Re	esidential Rate	R	esidential	Charge as
City	Utility		12		¢/kWh	В	ill \$/month	% of Bill
Boston	Boston Edison	\$	7.43	\$	0.2017	\$	117.38	6.3%
Chicago	Commonwealth Edison	\$	10.27	\$	0.1224	\$	85.70	12.0%
Detroit	Detroit Edison	\$	7.28	\$	0.1021	\$	67.84	10.7%
Houston	TXU Retail	\$	-	\$	0.1474	\$	195.84	0%
Miami	Florida Power and Light	\$	5.98	\$	0.1190	\$	138.53	4.3%
Nashville	Nashville Electric Service	\$	9.70	\$	0.0807	\$	102.16	9.5%
New York	Con Ed	\$	13.62	\$	0.2090	\$	86.76	15.7%
Portland	Portland General Electric	\$	8.67	\$	0.0829	\$	75.59	11.5%
San Francisco	Pacific Gas and Electric	\$	5.13	\$	0.1461	\$	84.03	6.1%
Seattle	Seattle City Light	\$	3.38	\$	0.0658	\$	49.43	6.8%
Average for US Utilities in HQ Sample		\$	7.15	\$	0.1277	\$	100.33	8.3%
Montreal	Hydro Quebec	\$	12.19	\$	0.0715	\$	104.34	11.7%
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Proposed	Hydro Quebec	\$	8.40	\$	0.0715	\$	104.34	8.1%

#### Comparison of Monthly Fixed Charges for US Cities used by Hydro Quebec

However, I think it is also important to compare HQ to a group of more similar utilities in terms of rate level and resource mix. I have assembled a selection of relatively low-cost utilities with significant hydro resources. These include two in Canada and four in the United States. I do not assert that this is a statistically accurate sample; it is simply a selection of utilities which share some important characteristics with HQ – though their average monthly bills are significantly lower. This group has an average monthly fixed charge of \$5.16/month, which is about 7.9% of the average monthly bill paid by residential consumers. I did not do a currency conversion for this average. The point is simply that the current HQ fixed charge, at 11.7% of the average monthly bill, is well above the average for this group. By contrast, the lower \$.28/day fixed charge proposed by Mr. Raphals represents 8.1% of the monthly average bill, a level very comparable to this group of low-cost utilities.

I have also included the type of rate design for each of these utilities. All have some form of inverted rate (the BC Hydro inverted rate takes effect November 1, 2008), and several are either steeply inverted or three-block inverted rates.

Why is the presence of hydro significant? Only because hydro is a low-cost resource that is also a very stable cost resource. There are some low-cost coal-dependent utilities, but they face great uncertainty in their costs, as carbon regulation is on the way. I do not consider the coal-dependent utilities to be appropriate comparisons for HQ.

#### Sample of Low-Cost Utilities With Significant Hydro Resources

Utility	Location	Monthly Fixed Charge	A' M	verage lonthly Bill	Fixed Charge as % of Average Bill	Type of Rate Design
Idaho Power	Idaho	\$4.00	\$	4.32	6.2%	Inverted
Idaho Power	Oregon	\$5.25	\$	66.55	7.9%	Inverted
Avista	Washington	\$5.50	\$	6.34	8.3%	3-Step Inverted
Avista	Idaho	\$4.60	\$	62.28	7.4%	Inverted
Pacific	Washington	\$6.00	\$	8.66	8.7%	Steeply inverted
Pacific	Oregon	\$7.50	\$	9.28	10.8%	3-Step Inverted
BC Hydro	BC	\$4.00	\$	7.90	6.9%	Inverted
Manitoba Hydro	Manitoba	\$6.60	\$	1.90	9.2%	Inverted
Seattle City Light	Washington	\$3.00	\$	9.43	6.1%	Steeply inverted
Average:		\$5.16		\$64.07	7.9%	
Hydro Quebec Current	Quebec	\$ 12.19	\$	04.43	11.7%	
HQ Proposed	Quebec	\$ 8.40	\$	04.34	8.1%	

The discussion above shows that the current HQ fixed charge is well above those charged by two different groups of large utilities, both hydro and thermal, and both in absolute magnitude and expressed as a percentage of the average monthly bill.

The lower fixed charge of \$.28 per day proposed by Mr. Raphals is much more consistent with the average fixed charges collected by these two samples of utilities.

## **3** How Fixed Charges Are Determined By Different Regulators

There are as many different ways of calculating fair, just, and reasonable rates as there are analysts preparing rate studies. No single method is universally accepted, and in my experience, no two regulatory bodies do it exactly the same way.

I will describe two specific cost-based methods that both produce reasonable results. The first is a method I have proposed many times before the Washington Utilities and Transportation Commission, and which has served as the basis for determining the fixed charge in that state in many rate proceedings. The second is a completely different approach used by BC Hydro and the BC Utilities Commission.

### 3.1 Washington State

The methodology I have proposed in Washington, and which the Commission has utilized, uses very specific costs to determine a cost-based customer charge. Each cost element is computed on a monthly per-customer basis, and the sum of these generates the cost-based fixed charge. Because the underlying costs are quite different between utilities, the resulting cost-based fixed charge can be quite different.

Washington has had a long history of very detailed electric rate analysis, beginning with a "generic investigation" in 1980 (in which I participated actively), and refinement through literally dozens of utility-specific rate proceedings.

The Washington Commission explicitly rejected the so-called "minimum system" and "zerointercept" methods for determining customer-related costs, and adopted the "basic customer" method, which uses only those costs which vary directly with the number of customers served in determining customer-related costs.

The cost categories in the methodology I have proposed in Washington are those which vary directly with the number of customers served, and are largely unrelated to the volume of electricity delivered. There are both investment (rate base) elements and operating expense elements. There are a number of categories explicitly excluded.

Rate Base Elements Included				
	Meters	Account 369		
	Service Drops	Account 370		
	Pro-Rata General Plant Expense			
	Associated Depreciation Expense			
	Return and Taxes			
Operating	Operating Expense Elements			
	Meter Maintenance	Account 597		
	Meter Operations	Account 586		
	Services Maintenance	Account 587		
	Meter Reading	Account 902		
	Customer Records and Collection	Account 903		
Associated Administrative and General Expense				
Other Elements				
	Revenue sensitive adjustments to above			

There are also a number of specific accounts included in the customer billing and customer assistance grouping that is excluded from the computation of customer-related costs in this methodology. These include:

Rate Base		
All distribution plant other than meters and services		
Operating Expense		
Uncollectible Accounts	Account 904	
Customer Assistance Supervision	Account 907	
Customer Assistance Expense	Account 908	
Information and Instructional	Account 909	

I have included the actual exhibit I prepared nine years ago in an Avista rate proceeding in Washington (at that time they were known as Washington Water Power Company). The exhibits shows how I start with the plant in service for meters and services, remove accumulated depreciation, add a general plant weighting, and then calculate a plant-related customer revenue requirement, including return, taxes, and depreciation expense. I then take specific operation and maintenance account expenses, add an administrative and general cost adder, plus revenue sensitive items, to determine an expense-related

customer revenue requirement. The sum of those is divided by the number of customers to determine a per-customer Basic Charge (or a "fixed charge").

One important element of this is the "adjustment" of the revenue requirement for what are called "revenue sensitive" items in Washington. This adjusts up the costs for meter reading and billing costs to recover three cost elements: taxes, regulatory fees, and a provision for uncollectible bills. In Washington, the Commission sets a percentage in each rate case for the estimated uncollectible bills. In the methodology I have presented, the costs for meter reading and billing are adjusted for a small part of the total uncollectibles – but the overwhelming majority of the provision for uncollectibles is assigned to the production, transmission, and distribution rate elements, not to the fixed charge. This is essentially similar to the approach Mr. Raphals has used, assigning 10% of the uncollectibles to the fixed charge, and 90% to the usage portion of the total cost, only a pro-rata share of the uncollectibles is assigned to the fixed charge.

This is a cost-based approach, essentially identical to the approach that Mr. Raphals has used in his analysis in this proceeding. The calculations for each element of the fixed charge are computed by HQ in a manner equivalent to the method I used, except that they subtotal the elements on a percustomer basis, while I total the costs, and then divide the total by the number of customers.

At that time, nearly a decade ago, I calculated a \$4.59/month cost-based fixed charge. Today, the Avista fixed charge is \$5.50; the increase since that time is less than the rate of inflation. (All or nearly all of the Avista rate filings since that time have been settled without hearing, so there are no regulatory decisions on specific issues to cite.)

There are three regulated electric utilities in Washington: Pacific Power and Light has overall rates roughly equal to Avista's, and a fixed charge of \$6.00. Puget Sound Energy has much higher overall rates, and a fixed charge of \$7.00.

The point is that all of these utilities have significantly lower fixed charges than HQ, all based on a methodology that takes meters, meter reading, billing, and accounting costs into consideration, but that excludes other costs such as Customer Assistance and most costs related to uncollectibles.

### 3.2 British Columbia

The British Columbia Utilities Commission has used a much more subjective method to achieve the same result.

BC Hydro has been through two important proceedings in the past year. First, a rate design case for all classes of customers resulted in an increase in overall BC Hydro residential rates, with future residential rate increases planned. Second, BC Hydro requested, and received approval for, a residential inverted block (RIB) rate design. In addition to these, the Provincial Government notified BC Hydro that the Government would not be pursuing the additional cost shifts to the residential class (rate rebalancing) that had been included in the original rate design decision.

Significantly, the BCUC approved a means to measure cost of service that would classify a relatively large amount of costs as customer-related, but then ordered a Basic Charge that is much smaller than the sum of those costs.

In the 2007 BC Hydro rate proceeding, the utility submitted a cost of service study that classified ALL Customer Service and Customer Assistance expenses as customer-related -- very different from the method I used above. As a result of that, the utility calculated a customer-related revenue requirement of \$236 million out of a total residential revenue requirement of \$1.185 billion, or about 20%.

When it then turned to designing rates, it proposed (and the Commission approved) a much lower fixed charge, which would produce only \$69 million, or 6% of total residential revenues of \$1.121 billion. The reason given for this was simply that the utility proposed only an inflation adjustment to the Basic Charge. No party proposed anything different, and it was approved:

### Basic Charge

BC Hydro states that it is not proposing any structural changes to the Residential rate. However, to be consistent with how the Basic Charge is calculated in the billing system, the Basic Charge will be expressed on a per day basis of 12.26 cents per day, as opposed to \$7.38 on a bi-monthly basis (Exhibit B-1, p. 31).

No Intervenor commented on BC Hydro's proposed changes to its Residential Rate Schedules in respect of Multiple Residential Service; Common Areas of Multi-Residential Buildings; Credit for Ownership of Transformers; Tankless Water Heaters; Basic Charge, and to terminate Rate Schedules 1111, 1131 and 1133.<sup>1</sup>

I have not discussed this file with either BC Hydro or BCUC Staff, but it is clear to me that the utility requested, and the Commission approved, a significant deviation in rate design from the

<sup>&</sup>lt;sup>1</sup> BCUC Order, BRITISH COLUMBIA HYDRO AND POWER AUTHORITY 2007 RATE DESIGN APPLICATION PHASE 1, Page 106.

methodology used for interclass cost allocation. The effect was to maintain the Basic Charge at a level far lower than that which would have followed from the cost-of-service study.

Next, in the RIB application, BC Hydro proposed, and was granted, a change in the residential rate design from a flat rate to an inverted rate. The plan is to make it more steeply inverted over time, with the pace of inversion determined by the residential revenue requirement ordered by the BCUC. Given the Government decision to eliminate the rate rebalancing, it is not possible to predict how fast the inversion will take place, but the table below shows the three-year rate trajectory proposed by BC Hydro based upon the expectations at the time of their application:

Rate Element	Year 1	Year 2	Year 3
	October, 2008	April 2009	2010
Basic Charge \$ / day	\$.1238	\$.1264	\$.1291
First 1600 kWh / bimonthly bill	\$.0628	\$.0641	\$.0655
Over 1,600 kWh / bimonthly bill	\$.0698	\$.0853	\$.0935

Source: BC Hydro 2008 RIB Rate Application, Appendix E, Page 2

Thus, the Basic Charge and the first block were forecast to rise by 4.3% over two years (inflation); meanwhile, the second block was forecast to rise by 34%. By year 3, the second block would be 43% higher than the first block. This is considerably higher than the block difference in HQ's current rates (35%), and somewhat lower than the level (48%) in the Alternate Rate Design discussed in Mr. Raphals' testimony.

The decision by the BCUC was slightly different from the BC Hydro request, and does not precisely state the rate elements for years 2 and 3, as they are subject to variation depending on the approved revenue requirement. The first year residential rates are as follows:

Rate Element	Year 1
Basic Charge \$/day	\$.1238
First 1,350 kWh /	\$.0598/kWh
bimonthly bill	
Over 1,350 kWh /	\$.0721
bimonthly bill	

Source: https://www6.bchydro.com/emcweb/content/residential\_inclining\_block.jsp

Thus, the approved rate actually lowered the first block rate, compared with the BC Hydro request, and increased the second block rate, compared with the BC Hydro request. The rates for years 2 and 3 are likely to rise more slowly than in the BC Hydro request, because the Government has determined not to impose the rate rebalancing that was embedded in the BC Hydro proposal.

The bottom line of this is that BC Hydro has a rate design with a Basic Charge that is about one-half of what Mr. Raphals is proposing (and less than one-third of the current HQ fixed charge). And, assuming the rate design is continued and rates increase as predicted, BC Hydro will soon have an end-block rate that is significantly above the end-block rate that would result from Mr. Raphal's proposal. Simply stated, while BC Hydro is a lower-cost utility overall than HQ, they will likely have a higher end-block than HQ rate by early next year.

While the methods used to get to this result are significantly different than the method Mr. Raphals has proposed based on the HQ cost analyses, the end result is very similar to what he is proposing here.

## 4 A Cost-Based Rate for HQ

The key issue for the Regie to determine in this proceeding is what is the appropriate fixed charge to include in the residential rate design. The current rate of \$.4064/day is a level that recovers more than those costs which truly vary with the number of customers served. It unambiguously includes the provision for uncollectible expense plus the entire cost of the telephone call centre.

These are the only meaningful differences between the parties in this proceeding over the determination of the customer-related costs.

Mr. Raphals discusses the reasons why the provision for uncollectible accounts and the entire cost of the telephone call centre should not be included in the fixed charge. Simply stated, customers that cannot pay their bills are generally find themselves in that situation due to the size of their bills, due to their usage, rather than due to the fixed charge. Only about 10% of the amounts subject to writeoff are associated with the fixed charge. Similarly, Mr. Raphals has included some, but not all, of the costs of the telephone centre operations. Obviously some calls are for things like establishing or discontinuing service, but many are for high-bill issues (usage-related) and conservation (usage-related). Some calls are safety-related, which are neither customer-related nor usage-related, but are important and necessary part of providing utility service.

By removing just those costs that do not directly vary with the number of customers, his analysis brings this down to about \$.28/day. I believe this is a reasonable estimate of the fixed costs that vary with the number of customers served.

As I have demonstrated, that would still leave a fixed charge that would be higher than that of many other low-cost utilities in North America, including Manitoba Hydro and BC Hydro. It would set the fixed charge at about the average percentage of the total bill for both the sample of U.S. utilities presented by HQ, and the average percentage of the total bill for the low-cost utilities I have presented.

## 5 Ramsey Pricing – The Inverse Elasticity Rule

There is another important reason to have a low fixed charge on the HQ system: to price marginal usage at a rate closer to long-run marginal costs.

This is important in comparing the fixed charges imposed by different utilities, because they are in very different situations with respect to the relationship between their average rates and their marginal costs. To price marginal usage closer to marginal costs, some utilities and their regulators have utilized what is known as the "Inverse Elasticity Rule" which states that the deviation from marginal cost should be greatest for the least elastic element of service. It is sometimes called "Ramsey Pricing" after Frank Ramsey, the British mathematician who did extensive analysis of the societal benefits that could be gained through this approach.

For a high-cost utility with low marginal costs, this would mean a higher fixed charge (the inelastic portion of service) and a lower end-block rate, so that the end-block rate is close to long-run marginal cost. For example, some of the U.S. utilities in the HQ sample, such as Consolidated Edison in New York and Commonwealth Edison in Chicago, have very high average rates which are well above the long-run marginal costs generally associated with similar utilities. They have fixed charges of more than \$10/month, which allows their rate per kWh to be closer to long-run marginal cost.

For a low-cost utility, the opposite is true. By setting the fixed charge at a low level and implementing inverted block rates, the end-block rate can be set closer to long-run marginal cost while still constraining total revenue to the approved revenue requirement. In essence, this distributes the cost savings associated with the low-cost resources to all customers more equally. The alternative, a high fixed charge and a low per-kWh rate, distributes the benefits of low-cost resources primarily to the largest users.

For HQ, which estimates its long-run marginal cost of power supply at 10.5 ¢/ kWh, clearly there is a benefit to employing Ramsey Pricing, setting a lower fixed charge rate and a higher per-kWh rate. By more closely aligning marginal costs and marginal prices, consumers are given incentives to be more economically efficient in their use of electricity.

## 6 Net Revenue Stability

Some electric utilities are pursuing much higher fixed charges in their rate design in order to achieve improved revenue stability. My work with the Regulatory Assistance Project includes a great deal of work on "revenue decoupling" or mechanisms to make utilities indifferent to sales volumes, in order to eliminate barriers to their investment in energy efficiency measures. This is most significant for utilities with high average costs, because at least their short-run marginal costs may be significantly lower than their marginal revenue from sales, meaning that a short-term decrease in sales would reduce net income and threaten the utility's financial stability.

The problem for many utilities is that, in the short-run, only fuel costs (or off-system sales and purchases) vary, while in the long-run the utility must add capacity. Therefore, short-run marginal costs may be much lower than the long-run marginal costs. To some extent, I understand this is the case for HQ.

There are many ways to protect the financial stability of the utility in the face of a difference between short-run marginal costs and the efficient price based on long-run marginal costs. A high fixed charge is probably the worst way to achieve this, because it punishes small users, discourages investment in energy efficiency, and shifts the benefits of a limited low-cost resource base to the largest consumers.

This is principally a problem when significant weather variations cause revenues to lag forecasts, while fixed costs continue. This can be exacerbated by the possibility that these same weather variations may cause export sales prices to fall below expectations – though HQD is insulated from these problems by functional separation. In that situation, the utility receives lower revenues from retail sales and may not be able to recover the shortfall from export sales. Reduced sales as a result of energy efficiency investments by consumers can also cause a suppression of revenues without a corresponding reduction in costs, but this is typically more manageable since the utility conservation budget is planned at the same time that the revenue requirement and overall rate levels are determined.

The traditional methods advocated for preserving financial stability under these conditions is either a high fixed charge rate, or a revenue decoupling mechanism. A decoupling mechanism simply uses a periodic true-up mechanism to adjust the price per kWh periodically to recover (or rebate) shortfalls (or surpluses) of fixed costs of providing service that are embedded in the per-unit cost of electricity. Utilities in many of the U.S. states, led by California, are employing revenue decoupling mechanisms. A few have chosen the other path, high fixed charges -- primarily in the natural gas industry.

These stabilization mechanisms are important to investor-owned utilities operating in a competitive environment, because they cannot recover in the future any shortfall of net operating income incurred in the past without such a mechanism. It is less applicable to a regulated utility like HQ, which can rebuild its financial reserves through the rate-setting process. For that reason, neither a high fixed charge nor a revenue decoupling mechanism is important for HQ.

In my opinion, the most important tool available to the Regie to protect the financial stability of HQ is a revenue requirement level that ensures the utility has adequate reserves, so that a warm winter of suppressed sales does not cause an unacceptable deterioration in the financial condition of the utility. A review of the finances of HQ is beyond the scope of my work in this proceeding, but I will note that the bond ratings for HQ are quite high, indicating that this goal of a high degree of financial stability has been achieved.

## 7 Elasticity

In our 2007 evidence, we estimated the kWh savings that we believed could be achieved by lowering the fixed charge and focusing increases on the end-block rate.

We estimated that savings of up to 1.7% of the sales of the utility could be achieved through rate reform. I believe that those estimates are still valid.

## 8 Summary

My evidence has compared the HQ fixed charge to those imposed by other electric utilities. In both cases, the HQ fixed charge is well above that of its peers.

The current HQ fixed charge is approximately \$12.19 per month, which is nearly 12% of the average residential bill.

I compared the HQ fixed charge to two samples. The first was the group of U.S. utilities selected by HQ for inclusion in its HQD-12, Document 1. For that group, the average fixed charge was \$7.15 per month, or approximately 8.3% of the average residential monthly bill. The second group was a selection of low-cost hydro-based utilities in the U.S. and Canada, some ways more comparable to HQ as a low-cost, hydro-based utility. For this group, the average fixed charge was \$5.15 per month, or 8.1% of the average monthly residential bill.

The principal cause of this above-average fixed charge appears to be the inclusion of 100% of the costs of the customer call centre and 100% of the costs of the provision for uncollectible accounts. In my opinion and experience, it is inappropriate to include 100% of these costs in the fixed charge, because much of the associated costs are usage-related, not customer-related.

Mr. Raphals has computed a cost-based fixed charge for HQ, which comes to approximately \$8.40 per month-- still higher than the average fixed charge for either the national sample or for the hydro-based utilities. However, it is approximately 8.1% of the average monthly bill for HQ, a percentage that is in line with the peer groups.

I recommend that the HQ fixed charge be reduced, and that the necessary revenue be included in the price for usage, primarily usage above the initial block of service.