

RATE DESIGN FOR RECOVERY OF ELECTRICITY DISTRIBUTION COSTS

Comments of Rogers Cable Communications Inc. on *Staff Discussion Paper (March 31, 2008)*.

Introduction.

Rogers Cable Communications Inc. (Rogers) is an integrated cable and communications company. To provide cable services to its customers, Rogers deploys cable signal amplifiers throughout the province. These cable signal amplifiers are energized by on board power supplies, connected to electricity distribution grids. The power supplies operate at a consistent draw, 24 hours a day. They have a load factor of 100%. They have stable, predictable and verifiable consumption which, though different for each particular power supply configuration is generally set for each power supply at some point between 400 and 500 kWh per month. Given the relatively low volume, the very high load factor, and the stability and predictability of the consumption of these power supplies, it is uneconomic to meter them. They are thus billed as "unmetered scattered load" (USL).

The March 31st, 2008 Staff Discussion Paper (*Discussion Paper*) specifically addresses rate design for USL. In addition, the *Discussion Paper* canvasses a number of more general electricity distribution rate design issues that are relevant to considerations of rate classification and rate design for USL.

Rogers submits that basic rate design principles commend a separate USL rate class.

The USL rate should have:

1. **A fixed monthly customer charge to recover the annual customer related costs, including connection specific costs as well as overall customer care costs.**
2. **A variable charge to recover annual capacity-related costs, using monthly non-coincident peak demand as the billing determinant.**

In these comments Rogers: i) provides further context for consideration of rate design for USL; ii) addresses the considerations commending a separate USL rate class; iii) comments on the appropriate structure for a USL rate; and iv) addresses the requirements that would obtain were USL customers to remain aggregated into a broader rate class.

Further context for consideration of USL rate design.

As well as street lights, sentinel lights and cable signal amplifiers, USL includes bus shelters, phone booths, pipeline and telecommunication cathodic protection devices, sewage flow monitors, heaters for sewage flow monitors, traffic lights and traffic control equipment on the street, billboard lighting, sign lights, highway cameras, city traffic cameras, general city monitoring cameras, railway crossing signals, and decorative seasonal lighting.¹ In these submissions, references to USL customers are intended to cover unmetered electricity consuming facilities other than street lights and sentinel lights.

In fact, only a small number of Ontario distributors have a separate rate class for USL customers (other than street lights and sentinel lights).² Most Ontario distributors include USL customers within the General Service less than 50 kw (GS<50) customer class, and treat each USL facility connection (as opposed to each USL customer) as separate for purposes of the application of a monthly fixed customer charge. For example, Rogers has more than 1000 cable amplifiers in Hydro One distribution service territory, and thus pays more than 1000 separate customer charges each month for these amplifiers. The billing determinant for USL variable charges is estimated energy consumption.

Until 2006, most distributors applied their GS<50 rate to USL as they did to any other GS<50 customer. Clearly, however, the costs to serve USL customers are lower than those to serve metered customers, if only for the fact that costs associated with metering and meter reading are not incurred in serving unmetered loads. (There are in fact other cost differences, as further discussed below.) When the Board's *Handbook for 2006 Electricity Distribution Rates* (the *Handbook*) was being developed, USL customers raised this issue. In the result, the *Handbook* required distributors without a separate USL rate class to reduce the GS<50 fixed customer charge by 50% in applying it to USL connections. The reduction was intended to recognize the fact that an unmetered load does not produce certain costs, primarily (though not exclusively) metering and meter reading costs. This treatment was intended to apply on an interim basis, pending development of a treatment for USL that would apply generally accepted rate design principles.

Subsequently, Rogers participated in the Board's EB-2007-0667 process for reviewing application of cost allocation by electricity distributors. As a result of the agreement of stakeholders in that process, the Board directed a cost allocation "Run 2" analysis that computed revenue/cost ratios of USL customers separately from metered GS<50 customers. Distributors were also required to compute a cost based credit for USL customers to remove meter-related costs from the GS<50 fixed charge.

During the cost allocation review process, Rogers submitted its own analysis of the results from "Run 2" for a sample of 26 LDCs. A copy of that analysis is attached to these comments. Rogers' analysis concludes that even with the derived credit for meter-related costs applied to USL charges, the 2006 revenue to cost ratios resulting from the present rate structure, which applies a

¹ EB-2005-0317, *Board Directions on Cost Allocation Methodology for Electricity Distributors* (September 29, 2006), page 10.

² EB-2005-0317, *Board Directions On Cost Allocation Methodology for Electricity Distributors* (September 29, 2006) page 87, paragraph 2.

monthly fixed charge to each connection and uses energy as the variable charge billing determinant, are significantly higher on average for USL customers than for metered customers in the GS<50 class. The revenue to cost ratios for USL customers averaged 1.23, and ranged between 0.44 and 3.1 for the sample LDCs. By comparison, the "Run 2" revenue to cost ratios for the balance of GS<50 metered customers for the same sample LDCs averaged 1.06, and exceeded 1.31 in only one case.

Analysis of the "Run 2" cost allocation filings indicates that even with application of a derived credit to USL customers for avoided metering costs, the current USL rates are generally over recovering relative to costs to serve USL customers. In some instances the over-recovery is well outside of the Board's target revenue to cost ratio range as set in the Board's *Application of Cost Allocation for Electricity Distributors; Report of the Board, November 28, 2007, EB-2007-0667* (the *Cost Allocation Policy*). Rogers believes that this over recovery is in part the result of applying an energy based billing determinant to the variable charge component of GS<50 (including USL) rates while grouping USL customers within a broader (GS<50) rate class. As indicated in the *Discussion Paper*, when energy is used as a billing determinant, high load factor customers subsidize low load factor customers. USL customers are generally relatively high load factor customers. Another factor contributing to over recovery from USL customers may be (subject to proper and balanced analysis) lower per customer care costs not reflected in customer charge credits determined for USL customers.

Considerations supporting a separate USL rate class.

USL customers share basic characteristics:

1. They are generally low-consumption, high load factor loads.
2. They generally represent multiple locations/connections that are owned by one customer.

Rogers submits that these characteristics, and the high degree to which these characteristics of USL customers distinguish them from most other members of the current GS<50 customer class, commend a separate USL rate class.

Launching from basic rate design principles espoused by the seminal rate design authority, James Bonbright, the *Discussion Paper* addresses (at pages 20 through 22) factors that generally commend separate rate class treatment. These factors include:

- Consideration of the basic principles of fairness, which require that "like" customers be charged for distribution services on the same basis, while "unlike" customers (that is, customers displaying characteristics different from the "class" of customer under consideration) are charged on a different basis. Grouping like customers together, and "unlike" customers separately, allows for the charging of rates that reflect the differences in the way customers cause distribution costs.
- Differences in customer-related costs that commend separate rate classes include differences related to service connections, metering and customer service.

- Maintaining rate classes that display a high degree of homogeneity in customer characteristics also allows for the structuring of rates for any particular customer class in a way that minimizes inappropriate intra-class subsidies.
- When energy is a primary billing determinant for a customer class, it follows that high-load factor customers will subsidize low-load factor customers.

Addressing the last principle first - that under an energy billing determinant high-load factor customers subsidize lower-load factor customers - grouping USL customers in the GS <50 class has often resulted in subsidy by USL customers of other customers in the class. This structural deficiency in current distribution rate design contributes to the generally too high revenue to cost ratio for USL customers, even after application of a derived metering credit.

The *Discussion Paper* posits that a switch to demand as the variable cost billing determinant would eliminate this cross-subsidy issue, and that the advent of smart metering for all Ontario electricity consumers will make this possible. This is likely a sound conclusion. There are many additional sound rate design reasons for moving away from an energy to a demand billing determinant for all GS<50 distribution customers, as addressed in the *Discussion Paper*. However, there are other inequities driven by inclusion of USL in the more general GS<50 rate class that would not be eliminated, even with a switch for all GS<50 customers from an energy to a demand billing determinant.

The multiple location per customer characteristic of USL means that maintaining each connection as a separate customer may well drive unnecessary costs. In addition, relative to conventional one connection per customer load, USL customers place less demand per connection on customer care functions such as billing, collection, account management, and customer communications. This is quite apart from the fact that metering costs are not incurred to serve USL customers.

Further, the very flat and very consistent demand profile of USL facilities likely indicates lower customer driven costs for USL customers. Bills are very constant, rendering payment requirements more predictable and subject to less contention. This means that payment practices should generally be more consistent, and account/billing inquiries and monitoring requirements should be less frequent, than for other types of customers with more variable loads. The essential nature of USL customers may also indicate lower customer care costs. For example, USL customers don't call the distributor when the power goes out. (At the same time, USL distribution utility account managers must aggregate multiple consumption points in addressing USL customer accounts, which might drive some cost.)

The simple point is that USL customers drive distribution costs in a manner quite different from non-USL customers, for reasons beyond the difference in average load factor of USL facilities. Pursuant to the basic rate classification principles outlined in the *Discussion Paper* and highlighted above, a robust approach to ensuring recovery of appropriate (no more and no less) customer costs from USL customers would entail establishing a separate rate class for USL customers.

Elements of a USL rate.

Rogers submits that a USL rate is best structured with:

1. A fixed monthly customer charge to recover the annual customer related costs, including connection specific costs as well as overall customer care costs. (A two part charge, such as used by Toronto Hydro, would be an example.)
2. A variable charge to recover annual capacity-related costs, using monthly non-coincident peak demand as the billing determinant.

Using solely a connection, rather than a customer, billing determinant for USL customer costs could result in customers with more connections contributing more toward the class customer costs than customers with fewer connections. On the other hand, each connection does drive its own costs which should be reflected in the rate, perhaps ideally in a charge per connection.

For USL customers with relatively consistent loads, the choice between a monthly and an annual peak as the billing determinant for variable costs is less clear. These customers would generally not be able to shift load/shave peak demand. Generally, annual and monthly peak demand for these USL facilities are the same.³ Nonetheless, as a general principle Rogers would support the continuing demand reduction incentives offered by rates that use a monthly peak as the billing determinant for variable charges. In addition, using monthly peak demand would allow any changes in load levels to be more immediately reflected in billing.

Rogers also endorses the comment of Staff that basing a demand charge on each customer's non-coincident peak demand could be viewed as a proxy for each customer's required capacity (at least in relative terms).⁴ In the case of USL in particular, using non-coincident peak as the billing determinant best assures that photo sensitive (lighting) load shares in payment for the fixed capacity costs of the distribution system. Use of non-coincident peak as the billing determinant recognizes that the further "downstream" in a distribution system one gets, the more the specific facilities are related to the capacity requirements of the customers served, rather than the timing of the peak demand of those customers relative to other customers on the system.⁵

³ Many of Rogers' cable amplifiers have "battery mats" which, for operational purposes, act essentially as electric blankets that maintain minimum temperatures for the cable power supplies in extreme winter temperatures. When operating, these battery mats do increase Rogers' monthly winter peak demand over its peak demand at other times. (On an energy basis, the consumption of these battery mats is negligible - less than 1% of the overall consumption of the cable power supplies).

⁴ *Discussion Paper*, page 48, first full paragraph.

⁵ EB-2005-0317, *Board Directions on Cost Allocation Methodology for Electricity Distributors* (September 29, 2006), pages 58-59.

Maintaining USL within a larger and more diversified class.

For the reasons outlined earlier in this submission, Rogers would urge the Board to proceed with implementation of a separate rate class for USL customers. However, should the Board determine not to proceed with a separate USL rate class, Rogers submits that there are a number of requirements to ensure fair treatment of USL customers, even if as part of a more general (GS<50, or "secondary-one phase") rate class. At a minimum, fair treatment for USL customers would require:

- 1. A variable charge billing determinant for all customers in the rate class that is demand based rather than energy based, to eliminate cross-subsidies from high load factor to low load factor customers.**

As pointed out in the *Discussion Paper*⁶, when energy is a primary billing determinant for a customer class, it follows that high-load factor customers will subsidize low-load factor customers. Under an energy billing determinant, high-load factor customers who consume more energy will pay a higher proportion of the class's overall customer costs than lower-load factor customers, even though the higher energy consumption does not drive any higher demand related costs.

Rogers notes, and endorses, other good reasons for moving all GS<50 customers to a demand, rather than an energy, billing determinant for fixed customer costs, including:

- (a) Variable distribution costs are generally capacity driven rather than energy driven.⁷
- (b) Adoption of demand versus energy billing determinants will remove "boundary" issues that are encountered where energy billed GS<50 customers move between GS<50 and GS>50 rate classifications.⁸

- 2. Rigorous derivation of a metering credit, and any other applicable credits.**

In addition to derivation of an appropriate metering credit for USL customers to recognize that they do not drive any meter or related costs⁹, additional differences in customer care costs to serve (such as a single account/consolidated billing credit and lower customer care requirements, as discussed at page 4 of these comments) would have to be considered in setting cost reflective USL rates.

⁶ *Discussion Paper*, pages 20 - 21.

⁷ *Discussion Paper*, pages 11 - 12.

⁸ *Discussion Paper*, pages 12 - 13.

⁹ In the *Board Directions on Cost Allocation Methodology for Electricity Distributors*, September 29, 2006, the Board has recognized a number of utility accounts as appropriate for deriving a credit for USL customers, including: 5310 (meter reading expenses); 1970 (load management controls - customer premises; customer premises; 1860 (meters); 5070 and 5075 (customer premises); 5175 (maintenance of meters); 5065 (meter expenses).

3. **Verification at each rebasing for each LDC that the resulting USL revenue to cost ratio is reasonably close to 1.**

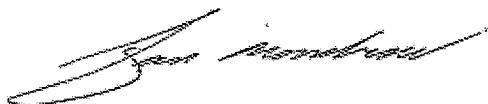
Even if demand rather than energy is used as a primary billing determinant, and credits to recognize the difference in costs to serve USL customers versus other customers are derived with greater rigour, maintaining USL customers within a broader rate class poses risks that costs will be inappropriately allocated and billed to USL. Given the unique characteristics of USL customers, Rogers would strongly urge proper cost allocation runs to verify the resulting revenue to cost ratios, and thus to ensure that over-recovery (or under-recovery) of revenues from USL customers is minimized.

Conclusion.

Rogers appreciates the opportunity to comment on the *Discussion Paper*.

Rogers encourages Board Staff and the Board to take this unique opportunity "...to ask what a rate design would look like if the Board was starting with a blank page"¹⁴, and to definitively address the rate issues that USL customers have been raising with the Board since at least 2003.

ALL OF WHICH IS RESPECTFULLY SUBMITTED by:
MacLeod Dixon, LLP



per: Ian Mondrow

June 4, 2008

¹⁴ *Discussion Paper*, page 14, last paragraph.

*Response to Board Staff Discussion Paper on
the Implications Arising from a Review of the
Electricity Distributors' Cost Allocation*

Filings

EB-2007-0667

Dated June 28, 2007

*Submitted on behalf of
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July 19, 2007

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1 BACKGROUND

Rogers Cable Communications Inc. ("Rogers Cable") is an integrated cable and communications company that receives electricity for its power supplies from distributors throughout Ontario. Rogers Cable uses power supplies in its cable network to energize its cable signal amplifiers. The power supplies are connected to the distribution network at a number of different points, and are unmetered in most distribution systems.

In each distributor's territory where Rogers Cable operates, its power supplies consume electricity in essentially the same manner. However, differences in the rates that distributors charge produce significantly different bills. The 2006 EDR process resulted in a consensus proposal which was adopted as an interim solution to address the wide variation in distribution rates applied to unmetered scattered load ("USL") customers by different local distribution companies ("LDCs"). The Board made it clear that this interim measure was not based on any particular rate making principles, and was merely a temporary solution pending further review.

Subsequently, Rogers Cable participated to the full extent allowed in the Cost Allocation Review stakeholder process, which was completed in 2006. This process resulted in information filings by all distributors following the methodology determined by the Board. It is the submission of Rogers Cable that the results of these information filings (the "filings"), together with identification of appropriate principles in the Rate Design review which is currently in progress, finally provide the basis for developing a long term solution to the outstanding USL issues in a manner that will result in just, reasonable and consistent rates for USL customers.

Rogers Cable agrees with the conclusions of the Staff Discussion Paper, which indicate on a brief analysis of LDCs with unique USL rates that revenue/cost ratios for this grouping tend to show a pattern of over-contributions. However, we believe that the further analysis described herein will illustrate and clarify the filing results with respect to USL as well as raising appropriate issues and questions, and believe that the following results and analysis will be of assistance to Staff and the Board.

2 METHODOLOGY

Rogers Cable reviewed and analyzed the results of those LDC filings that it has been able to obtain either in electronic or printed form. This data, in conjunction with rate data for 2006 contained in either the 2006 or 2007 rate models of the LDCs, constitutes the basis of the computations that will be presented herein.

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Filings from 37 LDCs were obtained and reviewed. The filings of two LDCs were eliminated from the data set because these LDCs are amalgamated and, as of 2006, not yet harmonized as to rates, making the comparative computations too complex for the time available. This reduced the main data set to 35 LDCs. As will also be noted in the later discussion, three of the filings are excluding from certain of the comparisons and summaries made below, because they reported zero or nearly zero distribution revenue from USL in their Run 2 analysis, despite the fact that they indicated connections and kWh consumptions for this customer grouping, and allocated costs to it. In a small number of other cases, although some distribution revenue was included in computation of the revenue/cost ratio, the amount of revenue is very different from the figure that would be computed by applying the LDC's rate, as per its rate model, to the number of connections and load. The reasons for this are not known to Rogers Cable or its advisors at the present time. The data was accepted for purposes of this analysis; however, we believe that clarification should be obtained before final conclusions are drawn based on the filings in these specific LDCs.

Computations involving the unit meter cost computed in Schedule O-3.5 of the Model were made. This data was not available for seven of the LDCs in the data set, and so these LDCs are excluded from computations involving unit meter costs. Six of the LDCs among the 35 appear to have unique rates for USL. These were excluded from the portion of the analysis which computes the impact of implementation of a 50% reduction in monthly fixed charges on an interim basis.

In the filings, Run 2 involved separation of USL from the class of GS<50 kW for those LDCs that do not otherwise define USL as a separate rate class. We collected, from Run 2 of each filing, the revenue/cost ratios for the GS<50 kW class (metered) and for USL. We then computed USL revenue based on the 2006 rates of each LDC as indicated in their 2006 or 2007 rate model, and the number of kWh and connections included either in the filing or in the LDC's 2006 rate model, as available. This was done to confirm whether it appeared that the rates were being applied to the consumption as would be expected.

Note was made of the cases where the monthly charge for USL included in the LDC's rate schedule was significantly different from the 50% of the GS<50 monthly charge, or where the variable charges applicable to metered GS<50 kW and to USL are different. In several cases, the rates indicated in the rate model did not reflect the 50% reduction, yet in such cases the revenue/cost ratios were different (generally lower) than what would have been obtained by applying the rate in the rate model. This may indicate that a 50% approach was applied by these LDCs in billing, but not reflected in its rate schedule; however, it is not clear whether USL is receiving the benefit of the 50% reduction in monthly fixed charges in all LDCs. In a number of cases it was also found

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that the level of variable charges was different for USL than for metered customers. The level of the variable charges, as well as the fixed charges, is a significant factor in the level of total bills and in resulting revenue/cost ratios.

The GS<50 kW class rates per the rate model were then applied to the USL class to determine what the revenue and revenue/cost ratio would have been, had those rates been applied to the USL customers without modification. And finally, where the data were available, we subtracted the computed meter credit amount from the GS<50 monthly charge, and used the net amount, with the GS<50 variable charge, to compute revenue, and a revenue/cost ratio for the USL customers. The purpose of this was to give a sense of the impact on relative revenue/cost ratios if USL were to continue to be treated as part of the GS<50 kW class, but receive a billing credit based on the computed meter-related costs, per customer per month.

3 RESULTS

3.1 *Application of the Unmodified GS<50 kW Rate to USL*

Table 1 shows, in order from lowest to highest in the sample of 35 LDCs, the Run 2 revenue/cost ratios of the GS<50 kW class, compared for each LDC with the revenue/cost ratio that would be achieved if USL customers were exposed to the unmodified GS<50 kW rates, *as they were in most LDCs prior to the negotiated interim solution which resulted in a 50% reduction to USL in fixed charges effective commencing in 2006.*

Table 1 – Comparison of Revenue/Cost Ratios of Subclasses at GS<50 kW Rates

	R/C Ratio GS<50 per Run 2	R/C Ratio USL Computed from GS<50 Rate	Difference
	64.56%	89.08%	24.53%
	65.19%	100.46%	35.27%
	81.23%	229.47%	148.25%
	81.75%	193.74%	111.99%
	82.72%	178.56%	95.84%
	86.33%	67.49%	-18.84%
	87.69%	193.58%	105.88%
	90.28%	76.88%	-13.39%
	91.08%	31.84%	-59.24%
	92.58%	146.63%	54.05%
	96.90%	147.70%	50.80%
	97.52%	137.79%	40.27%
	97.96%	192.18%	94.22%
	98.06%	239.07%	141.01%
	98.08%	316.35%	218.27%
	99.10%	60.41%	-38.69%
	101.43%	237.24%	135.81%
	103.75%	86.77%	-16.98%
	105.06%	270.49%	165.43%
	109.11%	199.23%	90.12%
	109.71%	159.55%	49.84%
	111.99%	91.70%	-20.29%
	112.93%	158.25%	45.32%
	113.86%	129.99%	16.13%
	114.98%	195.67%	80.69%
	121.51%	204.67%	83.16%
	121.85%	220.36%	98.51%
	122.17%	120.14%	-2.03%
	122.38%	252.44%	130.06%
	124.31%	144.35%	20.04%
	126.84%	368.75%	241.91%
	129.77%	159.46%	29.68%
	129.77%	131.50%	1.73%
	130.98%	117.43%	-13.55%
	182.95%	289.85%	106.90%
Average	105.90%	169.69%	63.79%

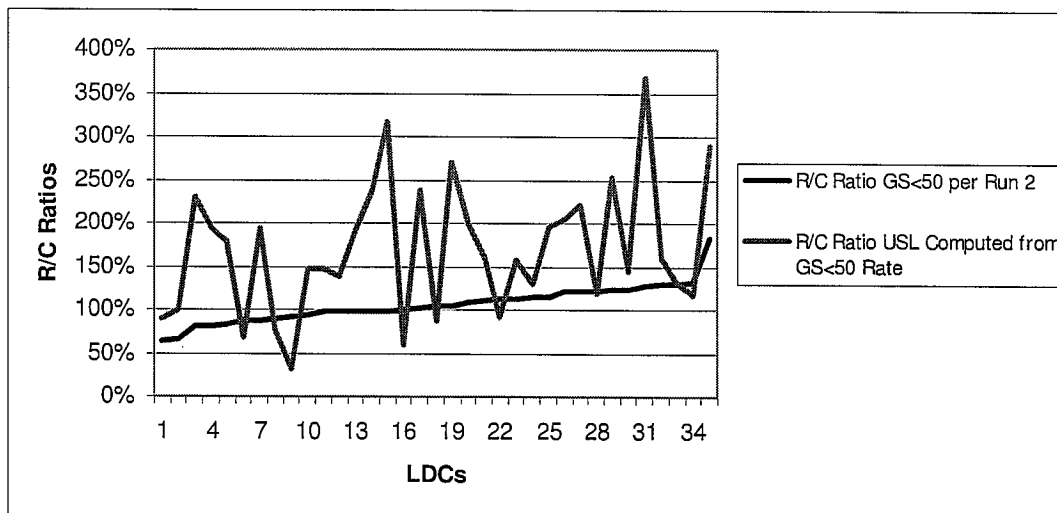
For 16 or nearly half the LDCs, GS<50 kW class is below 100% revenue/cost ratio, and in only two cases does it exceed 130%. The average revenue/cost ratio for metered GS<50 kW customers across all LDCs in the sample is 106%. By contrast, the revenue/cost ratio for USL at these rates would be below 100% in only 7 cases, and in 10 of 35 cases it exceeds 200%. The revenue/cost ratio of USL at the full GS<50 rates exceeds that for the metered customers in all but 7 cases, and with these 7 negative examples included, the average differential is 64%. In some cases the difference between the two ratios exceeds 200%. The average revenue/cost ratio for USL at these rates is 170%.

All 35 LDC filings in the main data set were included for purposes of this table, accepting as correct the allocation of costs made by the LDCs. However, it is noted that in a small number of cases, the revenue/cost ratio for USL (based on the unmodified GS<50 kW rate) is lower than the ratio for metered customers. This is not only inconsistent with the pattern in the majority of the LDCs that were reviewed, it is counterintuitive given that USL customers would not receive an allocation of meter-related costs. We therefore suggest that the filing data for these LDCs be re-examined before relying on it for local rate decisions.

We conclude that the GS<50 kW rate in unmodified form is clearly inappropriate for application to USL customers, since it results on a relatively consistent basis, in a different and much higher level of contribution by USL as compared with metered customers (170% as compared with 106%).

Figure 1 shows the same comparison in graphic form.

Figure 1 – Comparison of Revenue/Cost Ratios of Subclasses at GS<50 kW Rates



3.2 Modification to the GS<50 kW Rate

In reviewing the results of modifications to the GS<50 kW rate for application to USL, we suggest that inquiries be made to clarify some of the results reported by LDCs in their filings.

A number of LDCs in the sample assigned zero or near zero distribution revenues to USL class, which would not be expected from a review of their rate models. We suspect that these are errors, and these LDCs have been eliminated from Figure 2. We are assuming that other smaller anomalies result from conditions of the rate that were not apparent from our review, but it is also possible that these are errors or atypical conditions that should be corrected before basing decisions on the filings.

Figure 2 shows the revenue/cost ratios of the LDCs for USL as set out in Run 2 for the main data set, excluding the LDCs which reported zero or nearly zero distribution revenues, and also excluding 6 which appear to have unique USL rates.

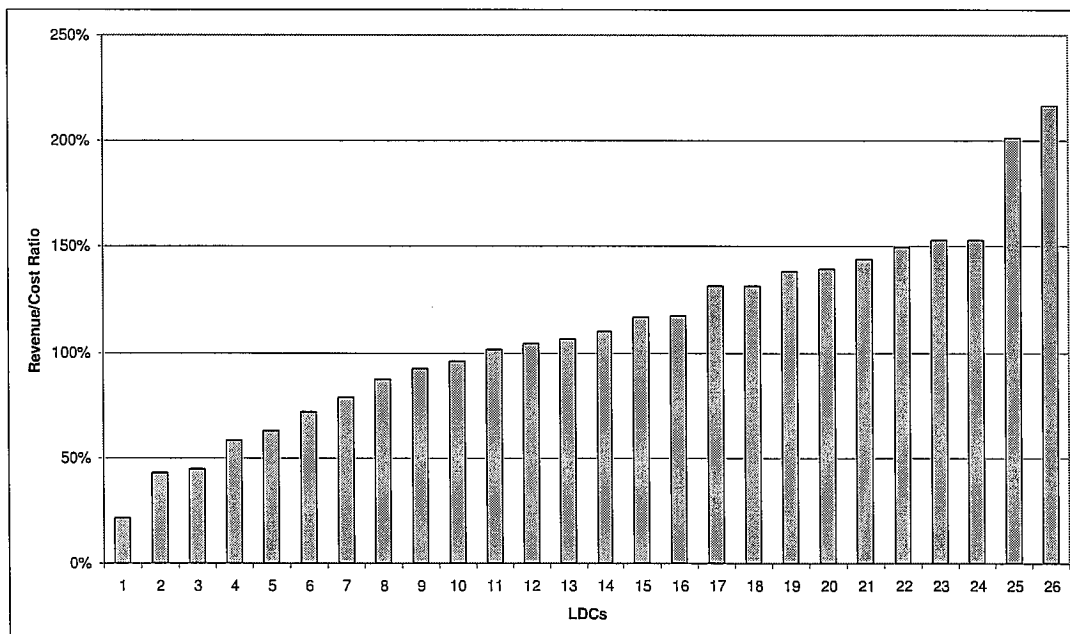
The LDCs with unique USL rates were analyzed and reported on in the Staff Discussion Paper, Section 3.4.3. Staff concluded on page 20 that "there appears to be a tendency

for the ratios to be to the right of 100%". Our analysis therefore focuses on the effects of the 50% reduction in monthly services charges for those LDCs without unique rate.

Board Staff, at page 20 of the Discussion Paper, suggest that "the range for the USL class should be the same as the GS<50 class". We concur with this recommendation. Board Staff also suggest that "a range of +/- 20% of unity (i.e. 80% to 120% is reasonable". Only seven LDCs out of the 26 that were analyzed, and which do not have a unique USL rate, have USL revenue/cost ratios on this basis which are below 80%, and in ten of the LDCs, the revenue/cost ratio exceeds 120%. The average revenue/cost ratio for the group is 110%, at the high end of the range suggested by Board Staff.

Board Staff's suggestion would establish up to 40% relative rate differentials (80% to 120%) as acceptable. Some other regulators have defined the range of reasonableness for class revenue/cost ratios more narrowly, for example as +/- 5% of unity or 95% to 105%. In the view of Rogers Cable, differentials of more than 10% are not just and reasonable, and we strongly recommend that all classes in all LDCs be moved to revenue/cost ratios close to unity as soon as can be done without rate shock.

Figure 2 – USL Revenue/Cost Ratios from Filings Run 2



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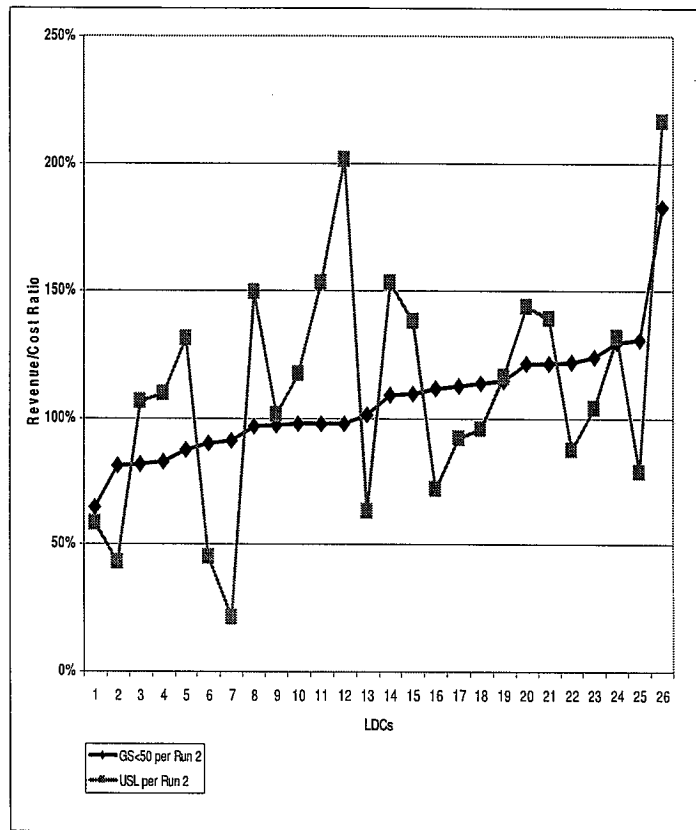
The impact on the relative revenue/cost ratios of metered GS<50 kW customers and USL customers of a 50% reduction in monthly fixed charges is dependent on a number of aspects of the rate, including the component of total bills represented by the fixed charge. As a result, the pattern of differences is not consistent. Table 2 compares the Run 2 revenue/cost ratios for USL (which are presented in graph form as Figure 2) with the Run 2 revenue/cost ratios for metered GS<50 kW customers for the same LDCs. For USL, the Run 2 results in these LDCs were assumed to reflect a modified GS<50 kW rate with a 50% reduction in monthly fixed charge. The average revenue/cost ratio is 110%.

We believe that it should be a goal of any rate adjustments that are made as a result of the filings, or of further cost allocation analysis at a later date, that the revenue/cost ratios for all classes of customers should be within a band of 95% to 105%, and that the revenue/cost ratio for USL should not be significantly different from the revenue/cost ratio for metered small general service loads. On average, the 50% reduction approach achieves a revenue/cost ratio which is at the high end of Board's Staff's suggested range, and well above the range that we would recommend. Furthermore, the extreme variability among LDCs is highly undesirable.

Table 2 – Comparison of Revenue/Cost Ratios for GS<50 kW and USL, From Filings Run 2

	GS<50 per Run 2	USL per Run 2
	64.56%	58.24%
	81.23%	42.85%
	81.75%	106.77%
	82.72%	109.69%
	87.69%	131.45%
	90.28%	44.85%
	91.08%	21.48%
	96.90%	149.52%
	97.52%	101.22%
	97.96%	117.38%
	98.06%	153.04%
	98.08%	201.39%
	101.43%	62.90%
	109.11%	153.20%
	109.71%	138.26%
	111.99%	71.89%
	112.93%	92.30%
	113.86%	95.67%
	114.98%	116.70%
	121.51%	143.71%
	121.85%	139.36%
	122.38%	87.52%
	124.31%	104.24%
	129.77%	131.76%
	130.98%	78.89%
	182.95%	216.54%
Avg	106.75%	110.42%

Figure 3 – Comparison of Revenue/Cost Ratios for GS<50 kW and USL, From Filings Run 2



Another potential approach to modification of the GS<50 kW rate for use by USL would be to apply a credit based on monthly per customer meter-related costs. An amount was computed by each LDC as part of its filing.

Table 3 compares the revenue/cost ratios which we computed using this approach, with the revenue/cost ratios for USL from the LDCs' Run 2. Some of the inconsistency within LDCs reflects a comparison with a unique USL rate in the Run 2 figures, and some is due to the difference between the reduction in fixed charge computed on the meter credit basis and the reduction computed as 50% of the GS<50 kW monthly fixed charge. The computed unit meter cost for the LDCs in the sample group ranges from \$3.07 to \$12.79, and averages \$7.35. Monthly fixed charges for the GS<50 kW rate for this group of LDCs average \$20.20 per month, so that a 50% reduction would average \$10.10 per month, if applied uniformly by all the LDCs.

Note that the Run 2 column averages lower for USL in this table than the Run 2 column of Table 2. This results from the elimination from the data set, for Table 3, of the LDCs for which no meter unit cost data was available. This included several of those for which the Run 2 USL revenue/cost ratio was among the highest in the group.

Table 3 – Comparison of Run 2 USL Revenue/Cost Ratios with USL Revenue/Cost Ratios computed on Basis of GS<50 kW Rate with a Meter Credit

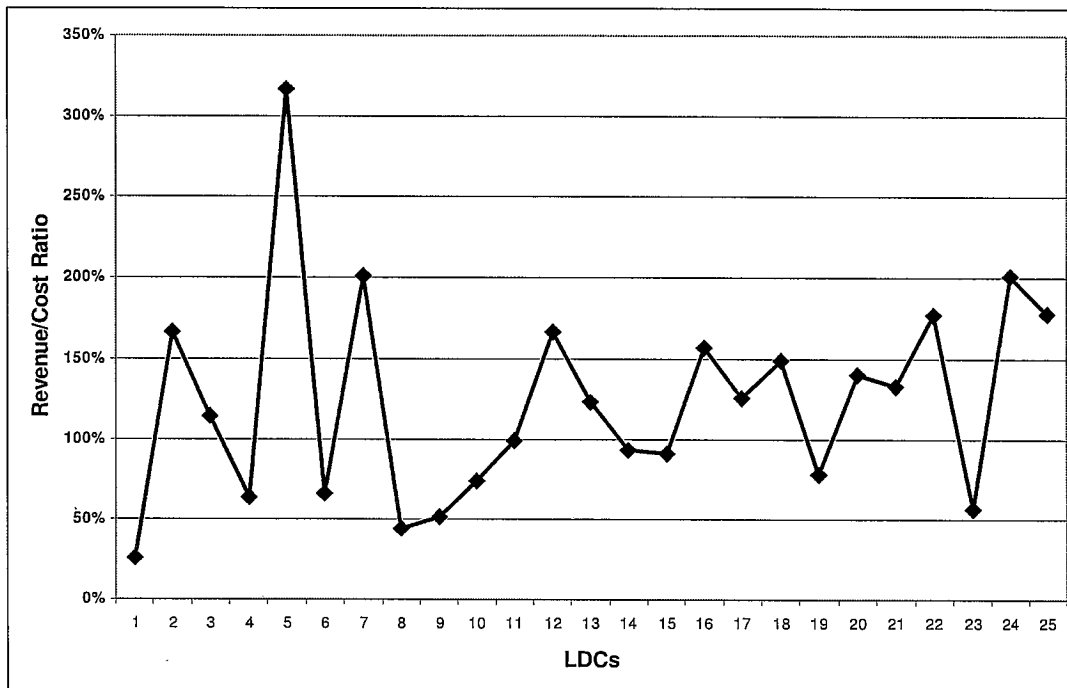
R/C Ratio USL per Run 2	R.C Ratio USL Using GS<50 Rate and Metering Credit
101.22%	93.08%
104.24%	90.97%
138.26%	139.96%
21.48%	25.37%
92.30%	123.15%
62.90%	201.52%
44.85%	63.86%
106.77%	156.96%
87.52%	166.33%
78.89%	98.94%
42.85%	166.92%
153.04%	201.34%
56.93%	316.88%
117.38%	125.32%
71.89%	73.68%
143.71%	177.06%
131.45%	149.12%
131.76%	77.93%
66.30%	44.04%
152.18%	56.53%
139.36%	132.45%
153.20%	177.50%
43.01%	114.25%
58.24%	65.84%
71.36%	51.37%
Average	94.84% 123.61%

On average, the revenue/cost ratio for USL achieved by this approach is outside an acceptable range, even if the less stringent criterion recommended by Board Staff is accepted, and the extreme variability is also highly undesirable.

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Figure 4 shows the revenue/cost ratios for USL computed using the metering credit (data from Table 3) in graphic form, to demonstrate the variability of results in different LDCs.

Figure 4 – USL Revenue/Cost Ratios computed on Basis of GS<50 kW Rate with a Metering Credit



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4 CONCLUSION

In our view, the results of the LDCs' cost allocation information filings show that applying the GS<50 kW rate to USL customers without modification, as was the case in most LDCs prior to implementation of the 50% reduction in fixed charges as an interim measure in 2006, leads both to excessive variability in revenue/cost ratios among LDCs, and also to a pronounced pattern of over-contribution by USL both in absolute terms and relative to metered small general service customers. In many individual cases and on average, the level of over-contribution greatly exceeds a reasonable range of acceptable revenue/cost ratios, even by the criteria suggested in the Discussion Paper (range of 80% to 120%). By a narrower interpretation of the "range of reasonableness" concept (95% to 105%), the level of over-contribution is even more pronounced.

In addition, Board Staff in the Discussion Paper have identified a pattern of over-contribution where the LDCs have a unique rate for USL.

Two approaches to modification of the GS<50 kW rate were examined:

- a 50% reduction in fixed monthly charge (which is currently in effect on an interim basis for those LDCs without a unique USL rate); and
- application of a meter credit in the amount of the unit meter-related costs computed in each LDC's filing.

The former method achieves more in terms of producing an acceptable average level of revenue/cost ratios for USL customers than the latter; however both fall short in that the level of variability among LDCs is very high. Modification of the GS<50 kW rate for application to USL would perpetuate the high level of variability in revenue/cost ratios that has been shown.

We believe that the variable as well as the fixed part of the rate needs to reflect the cost causation pattern of the customers in the class, and appropriateness of the entire rate design to a class of small, high-load-factor consumers should be reviewed. It is our view that the results of the filings strongly support the need for a separate rate classification for USL, with its own rates that will result in appropriate revenue/cost ratios for USL customers in each LDC which are just, reasonable and consistent.