Board Staff Questions to Participants of September 18-22, 2006 Technical Conference

1. **Access to Capital** (addressed to distributors)

Please provide any information available on situations where your distribution utility has experienced difficulties in obtaining financing for capital investments on reasonable terms. What reasons were given for the inability to raise capital or on unreasonable (i.e. above-market rates)?

Chatham-Kent Hydro (CKH) and Middlesex Power Distribution Corporation (MPDC) have not required external financing for capital projects partly due to slower growth rates in our service areas and also because the current capital structure and their returns are fair and reasonable.

The concern that both Local Distribution Companies (LDCs) have is the difficulty that they could face in the upcoming years to finance new projects that are to support the Provincial Governments initiatives for smart meters and conservation.

Support to Government initiatives

CKH and MPDC are fully committed to support the Provincial Government initiatives and have in the past by providing their customers with the following programs;

- Line loss reductions
- Introduced and implemented a new conservation program for all grade five students
- Introduced an interactive website for children to learn about conservation, www.ckenergykids.com
- Conservation programs for all customers.
- Introduction of the conservation slogan, 3 T's of Energy Conservation – Turn it Off, Turn it down and Trade it in.
- Smart meter pilot projects in both LDCs along with partnering with a neighbouring LDC
- Smart meter deployment has begun for both LDCs as they have been given approval by the Provincial Government to provide smart meters to all customers.

The commitments that are being provided by both LDCs will reduce revenue due to the conservation efforts and will increase capital costs due to items such as smart meter investments. This reduction in revenues coupled with increased capital outlays will negatively affect the borrowing capabilities of the LDCs, their ability to meet Government initiatives and strain their ability to continue to provide a safe and reliable system that meets the Service Quality Indicators (SQIs) that are set by the Ontario Energy Board (OEB).

Interest coverage ratios

The challenges that will be faced by the LDCs will be lower interest coverage ratios. Lower interest coverage ratios will negatively impact their borrowing capabilities.

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Maintain strong credit ratings

Additional challenge to LDCs will be the ability to maintain a strong credit rating. Dr Cannon discusses the importance of a high credit rating;

> *"A-rated debt, on the other hand, can be issued on reasonable terms under almost all financial market conditions. Consequently, those utilities, which can, try to preserve A ratings or better on their bonds, while smaller companies, for which A ratings are simply not available, strive to maintain BBB ratings. Aside from operational measures to manage a company's business risk, bond ratings can be maintained or possibly improved by increasing the firms CER, by increasing its expected return on equity, or both. On the other hand, a company's bond rating can be threatened if its CER is pushed below some critical level, or if its equity-return prospects deteriorate, or both."*[1]

Dr Cannon clearly states that it will be difficult for LDCs to obtain financing at reasonable terms with a rating of less than BBB. It should be noted that there are currently only a handful of LDCs with credit ratings. The lack of credit ratings is partly driven by the fact that many LDC's are relatively small and therefore would not obtain a reasonable credit rating.

A lowering of the CER and the ROE will make it more difficult for LDCs to obtain a good credit rating and obtain reasonable financing as outlined by Dr Cannon.

Summary

The above response is provided for the OEB's general benefit, but the reality is that no one can predict the impact of a change in capital structure in the face of all other externally imposed pressures being faced by LDCs in Ontario. Board Staff should not be asking whether there are negative impacts to their proposed change, they should ask whether their proposed change in the capital structure is justified. The critical issue is whether there is justification to move away from the current size-based risk premium. There is currently no evidence to support the OEB Staff recommendation. We are working with a group of LDCs to bring forward Dr. Roger Morin to provide evidence to the issue of a size-based risk premium.

[1] Dr Cannon, A Discussion Paper on The Determination of Return on Equity and return on rate base for electricity distribution utilities in Ontario, December 1998, Page 29

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2. **Merger and Acquisition Valuations** (addressed to distributors)

Please provide information available specifically on the valuation (relative to the net book value) of your distribution utility (if you were considering or effected the sale or merger of your utility) or of another distribution utility that you were considering or effected a merger or acquisition with.

MPDC sold its shares to Chatham-Kent Energy (CKE) in June 2005. The Merger, Amalgamation, Acquisition and Divesture (MAAD) application, EB-2205-0255, that was approved by the OEB had the following valuation;

Value of shares purchased	$4,482000
Value of equity at transaction date	$3,193,024
Value of Regulatory assets purchased (RP-2005-0351)	$1,025,516
Total book value purchased	$4,218,540
Purchase price / book value	1.06

MPDC had reduced their Operating costs by 17% between 2002 and 2004. These significant efficiencies and cost reductions were the base for the 2006 rate application. Therefore these costs reductions have been passed onto the customers of MPDC.

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3. **Impact on Sector Rationalization**

What impact (positive or negative), if any, might changing capital structure for most Ontario electricity distributors have on the prospects of physical consolidation of electricity distributors?

Transfer Tax

The largest barrier to LDC consolidation in Ontario is the transfer tax issue. If the Provincial Government removed the transfer tax, currently there are no funds being recovered from this, there would be the opportunity for some additional consolidation in the LDC sector. There have been a few occasions in the past where there has been a transfer tax holiday and during those periods there was some consolidation activity.

Negative impacts of capital structure change to consolidation

If the capital structure was to change some of the possible negative impacts would be;

- Regulatory uncertainty and risk would increase. By changing the capital structure so significantly in such a short time period investors will not feel comfortable with investing further in the industry because the regulatory risk would be too high.
- Too much debt would be required to purchase LDCs which could make it more difficult to obtain the necessary financing. If the equity component was higher there would be less risk from the lenders perspective which would then allow for more debt at reasonable rates.

Positive impacts of capital structure change to consolidation

A possible positive impact would be;

- Since the level of equity and returns will be lower some shareholders may not see the value in keeping the LDC when compared to the risk.

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4. **Return on Equity – Cannon Methodology**

Several parties have suggested that the Board retain the existing method of calculating the ROE as documented in Dr. Cannon's paper "Determination of Return on Equity and Return on Rate Base for Electricity Distribution Utilities in Ontario", dated December 1998, and consistent with the ROE methodology used in rate regulation of natural gas distributors under the Board's "Draft Guidelines on a Formula-Based Return on Common Equity for Regulated Utilities". If the Board was to retain the current methodology:

a. Should the ROE be updated for May 1, 2007 distribution rate adjustments?

b. What should the starting point for the ROE applicable to electricity distributors (e.g., 9.88% from the first Distribution Rate Handbook or 9.00% as calculated in the 2006 Electricity Distribution Handbook)?

c. If updates to the ROE are not done annually (e.g. under IRM), then how should the ROE update be done at the time that distributors file rebasing applications?

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a. Yes, the ROE should be updated in May 2007.

b. The starting point for the ROE application should be 9.88% from the 2000 Handbook, which is the rate that is consistent with the Cannon methodology.

c. CKH and MPDC support annual updates to the ROE.

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5. **Return on Equity and Rebasing**

The staff proposal currently would have the IRM price cap formula applied to existing Board-approved distribution rates, largely set through 2006 EDR applications.

a. Does the change in the inflation or price escalator factor of the price cap index, measured by GDP-IPI (Final Domestic Demand) as proposed by staff, reasonably track or proxy also the changes in the debt rates and market returns (and therefore the distributors ROE) year to year?

b. If so, is an ROE adjustment required in 2007 and while a distributor is subject to the price cap index? What are the implications of not changing the Return on Equity (ROE) currently allowed in a distributor's approved distribution rates until the distributor files a Cost of Service (rebasing) rate application during the period 2008 to 2010?

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a. Further review and understanding of what factors are included in GDP-IPI would be required to comment on this question.

b. See a above.

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6. **Capital Structure**

Several distributors have raised concerns about migrating quickly to a new capital structure. Consider a scenario whereby the Board were to phase in the change from the existing size-related capital structure to the common structure, for rate-making purposes, over several years. For example, a large distributor with over $1 billion in rate base might move from its deemed 35% equity to 40% over two years, to mitigate possible rate impacts on ratepayers. As another example, a small distributor with a rate base of less than $100 million could migrate from its current deemed 50% equity to 40% equity over three years, to mitigate the impact on corporate restructuring and on the distributor's shareholder(s). This change in the capital structure would be accomplished through the K-factor while the distributor is under an incentive rate mechanism (IRM) scheme, and a distributor migrating to the new capital structure would also factor such migration into its Cost of Service rebasing application.

a. What are the implications, advantages and disadvantages of such an approach?

b. Are there alternative approaches that the Board might consider?

CKH and MPDC does not agree with the fundamental principle that "one size fits all" and it should not apply to the Ontario LDC sector. In order to provide the OEB with some additional information on this topic we are providing the following comments;

<u>One size does not fit all in the Ontario gas LDC sector</u>
The OEB has for many years regulated the Ontario gas LDC sector and has consistently decided on different capital structures and returns for the 3 gas LDCs.

	Union Gas		Enbridge Gas		NRG	
	Capital Structure	Cost	Capital Structure	Cost	Capital Structure	Cost
Short-term	-0.90%	1.55%	2.24%	3.46%	-8.21%	6.00%%

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debt						
Long-term debt	61.66%	7.66%	60.01%	7.44%	66.21%%	8.31%%
Preferred shares	3.24%	4.71%	2.75%	5.00%	0.00%	0.00%
Common equity	36.00%	9.63%	35.00%	8.74%	42.00%	9.20%

The sources for the table above are;
Union Gas capital structure is from their 2007 rates settlement agreement, Enbridge Gas 2006 OEB approved capital structure, NRG OEB 2007 approved capital structure.

The reasons for the differences were based upon various risks, such as size, customer mix, geography etc. Based upon the decisions of the 3 gas LDCs the OEB clearly does not believe in "one size fits all" and therefore that principle should not apply to the electrical LDC sector.

Flexibility is recommended by Electricity Distributors Association (EDA)
The EDA's consultants, Christensen Associates Energy Consulting, recommend that the capital structure and returns should be flexible. Flexibility in the capital structure will reflect the different risk profiles of LDCs and will be fair to customers and the LDCs.

Answers to the Question 6

a. CKH has always been working towards minimizing the customer impacts as CKH had applied for an ROE of only 6.05% in the initial rate application, RP-2001-0033. In the Generic Hearing regarding the initial rate changes, RP-2002-0069, CKH's submission had been to implement a "glide path" for implementing the rate changes to the customers, a three year time line was recommended.

   CKH and MPDC are still very concerned about the customer impacts and if the OEB does implement the one size fits all capital structure this will have a significant impact on the LDCs. CKH and MPDC would recommend that the OEB use a much longer time frame to implement any change. There have been significant capital investments made in the LDCs since the original 2002 rate applications. These investments were made for the long term and assuming to realize a return of 9.88% or 9.0%, the ROE of when these investments were made.

   CKH and MPDC are also going to be investing significantly in the next few years in order to support the Governments initiatives for Conservation and Smart Meters. These investments are over and above what is necessary to provide the customers with a safe and reliable system while meeting the OEB SQI targets.

   The significant investments made in the past under a different capital structure and the significant new investments being required the LDCs should be able to earn the level of return that was approved at the time the investment was made. Therefore the LDC's should be allowed to earn a return based on a capital structure comprised of 50% equity .

CKH and MPDC understand that the significant change in the capital structure and the returns by LDCs will reduce the customers bills, however balancing this with the expected returns by LDCs for the investment that have been made and the investments planned to be made, CKH and MPDC would recommend a 7 to 10 year timeframe to implement any changes in the capital structure if the structure if the OEB does adopt the "one size fits all" capital structure, which again CKH and MPDC do not recommend or support
b. No.

7. **Load Concentration-related Business Risk**

While Board staff have proposed a common capital structure applicable to all distributors, several stakeholders have commented on business risk, possibly related to a material loss of revenues due to the loss of a customer or business sector served by the distributor and where that customer or business sector constitutes a significant portion of the load and distribution revenues for the distributor.

a. Could any significant risk that might materialize due to the loss of a significant load concentration be mitigated by Z-factor (or analogous) treatment?

b. If yes, then what would be the criteria for identifying an occurrence of such an event (e.g. what percentage of distribution revenue attributable to loss of a single customer should be the threshold for identifying a material revenue loss)?

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a. LDCs should be compensated for their internal business risk in the capital structure and the related returns. The business risks relating to load concentration or customer loss are internal and therefore should not be mitigated by a Z-factor or any other analogous treatment. Since the risks are internal they should be reflected in the capital structure and their returns.

Z-factors are used for risks that are external of the LDC and are used in very limited instances as described in Dr Lowry's report;

- Z-factors are used for risks that are external to the business and are recognized after the occurrence
    - Z-factor term of a price cap index adjusts the allowed rate of price escalation for external developments that are not reflected in the inflation and X-factors…One of the primary rationales for Z-factor adjustments is the need to adjust for price caps for the effect of changes in tax rates and other government policies on the company's unit cost…..Another rationale for Z-factors is to adjust for the effect

of miscellaneous other external developments on industry unit costs that are not captured by the inflation and X-factors [2]

- Z-factors have very limited use which the Ontario Energy Board has provided a decision on this issue in a proceeding by Union Gas
    - The Board agrees with the interveners that the use of Z-factors limited to changes in legislative and regulatory requirements and generally accepted accounting principles specific to natural gas business is appropriate[3]

b. No

[2] Mark Newton Lowry, Ph.D., "Second-Generation Incentive Regulation for Ontario Power Distributors", June 13, 2006, page 42
[3] Mark Newton Lowry, Ph.D., "Second-Generation Incentive Regulation for Ontario Power Distributors", June 13, 2006, page 43

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8. **Short-term Debt** (addressed to distributors)

At the Technical Conference, staff heard that not all working capital is funded by short-term debt and that some may be funded by long-term debt.

a. What percentage of your actual working capital is funded by short-term debt?

b. What percentage of your rate base does short-term debt represent?

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a. None of the current actual working capital is funded by short-term debt.

   MPDC prior to the purchase of the shares by CKE had used their line of credit extensively to meet their actual working capital. In the middle of the month, after paying the Independent Electricity System Operator (IESO), the working capital would be negative by $1.0 M to $1.5 M.

   The actual rate charged to MPDC was prime rate plus 1 percent, therefore the rate recommended by OEB staff is significantly lower than would be expected to be obtained by LDCs.

b. None of the rate base is represented by actual short-term debt.

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9. **Incremental Capital Expenditures**

Some distributors at the conference expressed concern over aging infrastructure and the need for increased investment in that infrastructure to maintain appropriate levels of service.

a. What are your known circumstances of where this could arise (addressed to distributors)?

b. Should incremental capital spending that is not attributable to load growth be treated outside of the price cap index (similar to what is proposed for CDM)?

i. If so, should it be eligible for Z-factor treatment?

c. Are there alternative approaches that the Board might consider?

d. If the Board were to provide for special treatment of these investments, should a threshold apply? If so, how might that be expressed (e.g., percentage of current CapEx budget less depreciation)?

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a. CKH and MPDC have been working on conversion programs for a several years now therefore reducing the risk of significant capital investments for very old plant.

Both LDCs have significant amount of their service area embedded in Hydro One's service territory. Some of the supply feeders owned by Hydro One are not as up to date as the CKH and MPDC service areas. An example of some of the assets are the transformer stations, these stations are old and will require significant upgrades. Hydro One has been very cooperative in working with CKH and MPDC in planning some of the upgrades to their service territory. The impact to CKH and MPDC is that they will most likely be required to make a capital contribution to Hydro One. Therefore both LDCs will want to ensure that they will obtain a return on their investment for the contribution to the capital upgrades and the concern is that we may not have as much control over the timing of the project. This could cause a significant financial impact to CKH and MPDC if these contributions are not reflected in the rates.

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b. Incremental capital spending that is required to provide a safe and reliable system while meeting the OEB's SQI standards should be treated outside of the price cap index.

   This treatment should not be a Z-factor for the same reasons provided in the answer to the Board Staff Question 7.

c. The Board should consider a similar approach as used in the 2006 rate applications with the introduction of tier 2 adjustments. LDCs were required to justify adjustments in rates based upon their financial requirements and the negative impacts of the initial rate handbook.

d. A threshold that the OEB should use in order to have a different treatment for significant capital programs is 20% increase in the capital program from previous years.

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10. **CI-factor**

During the technical conference, Mr. John Todd proposed a methodology for a CI-factor as part of the IRM price cap formula as a means for including incremental capital expenditures not related to load growth as an increment to the price cap index.

a. What are the implications, advantages and disadvantages of adopting such an approach?

b. Mr. Todd suggested that a distributor file an Asset Condition Assessment Study as support for the proposed CI-factor. Such a study does not directly indicate the cost of incremental capital expenditures needed to address deficiencies in the system. What information on the proposed capital expenditures should a distributor be required to file in addition to the Study?

c. What are the implications of adopting this approach where CapEx plans are not reviewed and approved by the Board?

d. The CI-factor methodology as proposed seems to start from a 2006 rate base. Hydro One Networks has a 2006 rate base that has been reviewed during its 2006 distribution rate application by virtue of applying on a forward test year. However, most electricity distributors filed 2006 distribution rate applications on the basis of a 2004 historical test year with allowable adjustments. Hence, the public information for most distributors reflects a 2004 rate base. What changes need to be done to the CIformula to properly adapt it for when 2006 distribution rates are calculated on a 2004 historical rate base?

e. Should the load growth factor be weather normalized? If so, how should this be done?

f. Some of the parameters for the calculation of the CI-factor, as proposed, may not be readily available from prior filings where the data were subject to review by the Board. By what process would the Board review and test the reasonableness of the parameters if a distributor were to apply for a CI-factor?

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CKH and MPDC have not had much time to review and understand the concept of the CI factor and are unable to provide the OEB anything additional to consider at this time.

11. **Declining Customer Base**

Some distributors have documented declines in their customer bases.

a. Would it be reasonable to adjust the X-factor, for example, to 0.7 for a distributor that has negative growth in its customer base over the period 2002 to 2005?

b. Are there alternative approaches that the Board might consider to address constraints on operating efficiencies possible under declining customer base conditions?

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a. CKH and MPDC does not think that this approach is fair to all LDCs. The OEB staff is proposing a different productivity factor for a few LDCs because they have a declining customer base.

   If the OEB considers a lower productivity factor for LDCs with declining customers then we would hope that the OEB would also consider a lower productivity factor for LDCs that have been very efficient oin the past.

b. CKH and MPDC have submitted that productivity factors should be calculated on an individual basis or at the very least there should be a few ranges of productivity factors that LDCs should use which are based upon the efficiency of their current operations, customer growth factors and their current rates.

   The OEB has performed a Comparators and Cohorts study, this study could also be used to assist in providing different productivity factors.

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12. **Smart Meter incremental funding**

In the July 25, 2006 Staff discussion paper, staff proposed incremental amounts of smart meter funding of $1.00 per month per metered customer for distributors working to achieve the Government's objective of 800,000 smart meters in place by the end of 2007, and $0.30 per month per metered customer for other distributors.

a. Are the proposed increments reasonable?

b. If not, what should they be, and why?

In order to assist the OEB in making their decision on the smart meter recovery for LDCs CKH and MPDC would like to provide the OEB with details about their smart meter deployment program prior to answering the specific questions asked.

Smart Meter Costs
CKH and MPDC are in full support of the Government's smart meter initiative.

CK H is considered a leader in smart meter implementation in Ontario. CK H has been recognized by the previous Minister of Energy, Donna Cansfield, for the successes that the smart meter project has made to date. The Minister recognized CK H by;

- Inviting CK H to the Parliament session when she introduced the Energy Conservation and Responsibility Act.
- Mentioned CK H in her submission to the standing committee on the Energy Conservation and Responsibility Act.

CK H has 1,000 smart meters on residential homes for more than a year now. The smart meters are installed at customers throughout the service area which is 11 non-contiguous areas covering 2,400 square kilometres of the Municipality of Chatham-Kent, which is 4 times the size of Toronto.

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CKH and MPDC have been identified in regulations as approved discretionary smart metering activity by the Ministry of Energy and have been authorized to fully deply the smart meters in their services areas. The technology of choice was the TUNet system provided by Tantalus, a non-related Canadian based company.

The TUNet system is a 2 way wireless technology. The communication is local and wide area network. The technology allows for a retro fit to the current meters therefore only a small potion of the meters will be required to be replaced.

The Customer Information System (CIS), provided by Harris Computer Systems, upgrades are in place such that CKH and MPDC will be billing the customers with smart meters the time-of-use rates by the end of 2006 and early 2007. The customers will have the ability to log onto our website and be able to review their previous day's consumption for each hour. The customer will also be able to review their previous bills and receive conservation tips.

The costs to the customers are $1.29 per month after savings from meter reading are taken into account. The costs for the TUNet system provided by Tanatalus have been reviewed and validated by Deloitte (Appendix 1), a major auditing and consulting firm. The only cost that will be challenged in this analysis is the Meter Data Management and Repository (MDMR) costs because they are currently being developed by the IESO. The Deloitte report has $0.10 per month in the calculation for MPDC services.

The CKH smart meter program has received an international award from the Utility Planning Network for Best Metering Data Integration Initiative (Appendix 2). The smart meter program is being recognized throughout North America.

Summary of the smart meter costs

It is important to note again what the $1.29 per month per customer includes;

- Module that allows the meter to become a "smart meter"
- Retro fit option that will be placed in about 60% of the current meter population, therefore reducing stranded costs
- Two way communication system to allow the smart meters to send the information to office
- The upgrades necessary to the CIS which will allow for billing and customer presentment on the web
- This includes all capital and on going operating costs
- A minimal cost for MDMR is included, $0.10 per customer per month

Deployment

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The full deployment program by CKH and MPDC tests the communication of each smart meter the day after it is installed and each day after that. This ensures the system is operating efficiently and effectively. This is a key component to the deployment program so that when we start billing and customer communication in the next few months everything is tested and operational.

Piggybacking to the CKH, MPDC and Tantalus system

There are a great number of LDCs that have been in contact with CKH and Tantalus in order to piggyback on the approval given to CKH and MPDC to install the Tantalus smart meters in their service territory. Currently the Ministry of Energy is allowing for piggybacking of the large LDCs approved vendors. CKH and MPDC are in favour of having LDCs piggyback on the Tantalus product and will support them in any way that we can. CKH and MPDC have taken the Government's smart meter initiative very seriously and would like to ensure that the LDC sector is successful in meeting the Government's goals while minimizing the customer impacts.

Therefore if the Ministry of Energy does allow for LDCs to piggyback onto the CKH and MPDC smart meter programs in the same manner as they are allowing for that to occur with the large LDCs we would like to ensure those LDCs get the additional $1.00 in their rates in 2007.

Answers to questions

a. The rate increments are reasonable however CKH and MPDC believe that no additional funds should be allowed in LDCs rates until they file a smart meter plan with the OEB. In the generic issues proceeding leading up to the decision on the 2006 rates, all LDCs were required to file smart meter plans, this requirement should be fulfilled prior to any additional rate relieve being provided to LDCs.

   If LDCs are given the approval to piggyback on the large LDC, Hydro One or the CKH smart meter programs they should receive the additional $1.00 per month from the customers provided they have filed a smart meter plan that will be implemented in 2007.

   CKH and MPDC believe that $1.30 per month from the customers should cover the majority of the costs for a good smart meter system that will meet all of the specification.

b. No additional comments.