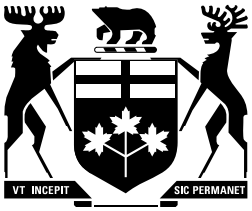

ONTARIO ENERGY BOARD

STAFF SUBMISSION

2010 ELECTRICITY DISTRIBUTION RATES

Kitchener-Wilmot Hydro Inc.

EB-2009-0267

January 22, 2010

INTRODUCTION

Kitchener-Wilmot Hydro Inc. ("KW Hydro" or the "Applicant") is a licensed electricity distributor serving approximately 85,000 customers in the City of Kitchener and the Township of Wilmot, located in southwestern Ontario. KW Hydro filed its 2010 rebasing application (the "Application") on August 31, 2009. KW Hydro requested approval of its proposed distribution rates and other charges effective May 1, 2010. The Application was based on a future test year cost of service methodology.

The Vulnerable Energy Consumers' Coalition ("VECC"), the School Energy Coalition ("SEC"), and Energy Probe Research Foundation ("Energy Probe") were granted intervenor status. No letters of comment were received.[1] The embedded distributor, Waterloo North Hydro Inc., was served Notice and a copy of the Application but did not participate in the proceeding.

The proceeding was conducted through written discovery, with two rounds of written interrogatories. Pursuant to Procedural Order No. 3, KW Hydro filed its Submission-in-Chief ("SIC") on January 13, 2010.

This submission reflects observations and concerns which arise from Board staff's review of the pre-filed evidence and interrogatory responses made by KW Hydro, and of its SIC, and are intended to assist the Board in evaluating KW Hydro's application and in setting just and reasonable rates.

THE APPLICATION

In its original application[2], KW Hydro requested a revenue requirement of $40,631,182 and transformer credit allowance recoveries of $426,772. The proposed rates are set to recover a revenue deficiency of $1,725,295. The following is a breakdown of KW Hydro's revenue requirement from its original application:

[1] Response to Board staff Supplemental IR # 26.

[2] Exhibit 1 / pp. 14-23 and Exhibit 6

Table 1:

Revenue Requirement

(per RRWF and Exhibit 6/page 2/Table 1)

OM&A	$	14,100,476
Amortization/Depreciation	$	10,735,844
Property Taxes	$	550,500
Capital Taxes	$	222,170
Income Taxes (grossed up)	$	2,748,885
Other Expenses	$	-
Return		
Deemed Interest Expense	$	7,047,153
Return on Deemed Equity	$	5,226,155
Distribution Revenue Requirement	**$**	**40,631,183**
Distribution Revenue	$	38,905,888
Other Revenue	$	1,725,295
Total Revenue	**$**	**40,631,183**
Addback LV recoveries	$	-
Addback Transformer Allowance receoveries	$	426,772
Embedded distributor LV Revenues (*)	-$	70,145
Gross Revenues for Rates (less Other Revenues)	**$**	**39,262,515**

(*)

Kitchener-Wilmot Hydro has historically treated the revenues to be recovered for distribution services provided to the Embedded Distributor outside of the "normal" revenue requirement. This was accepted by the Board in the 2006 EDR application.

In its Application, KW Hydro would have a total bill impact of 5.25%on a typical residential customer consuming 800 kWh per month. This would be reduced to 4.27% due to updates through discovery, but does not reflect any impacts of the Board's new Cost of Capital guidelines. Similarly, for a typical GS < 50 kW customer consuming 2,000 kWh per month, the estimated bill impact was 1.79%, reducing to 1.2% as a result of updates and correction through discovery. The revenue requirement shown in Table 1 and these Bill Impacts are based on the Cost of Capital parameters from the Board's February 24, 2009 letter under the previous Cost of Capital guidelines, and are to be updated according to the new Cost of Capital guidelines per the Board's Report of December 11, 2009.

In its SIC, the Applicant provided, pursuant to Procedural Order No. 2, an update of its revenue requirement confirming any changes that it has proposed between the time it filed the original application and the closing of the evidentiary stage of this hearing. KW Hydro has documented a reduction to total operating revenue of $445,014, reduction to service revenue requirement of $430,013 and a reduction to the base revenue requirement of $581,231. Thus the revised Distribution Revenue Requirement is

$40,186,169 and Base Revenue Requirement is $38,324,657.[3] A comparison of the revenue deficiency between the original application is provided in the SIC at page 14/Table 7.

LOAD FORECAST

Exhibit 3 of the Application discusses how the customer count and load forecast are developed by KW Hydro. The kWh and kW forecasts, as applicable, are presented by customer class. Variance analyses are presented in support of the forecasts. Board staff notes that KW Hydro did not address its load and customer forecast in its SIC, and assumes that KW Hydro is proposing no adjustments to the evidence documented in the original Application.

KW Hydro's weather normalized load forecast is developed using a three-step process:

1. A total system-wide weather normalized energy forecast is developed using a multivariate regression model that incorporates historical load, weather, and economic data.
2. This energy forecast is adjusted by historical loss factors to derive the system-wide billed energy forecast.
3. The system-wide billed energy forecast is allocated by rate class using a forecast of customer numbers and historical usage per customer.

Below, staff provides a synopsis of KW Hydro's methodology and forecasts, and any apparent issues.

Customer Forecast

Background

KW Hydro is seeking Board approval for a total test year customer count forecast of 110,747 customers/connections. This represents an increase of 1.3% per annum, compared to the growth between 2006 and 2008 of 2% per annum. KW Hydro has provided explanations for the forecasted growth rates for each customer class. KW Hydro has forecasted residential growth at 1.5% for 2009 and 2010, slightly reduced from historical growth. GS < 50 kW and streetlighting are assumed a growth rate of 1.0%. GS > 50 kW and Unmetered Scattered Load have almost no growth, while there is a

[3] These updates do not reflect the impact of the new Cost of Capital guidelines per the Report of the Board on the Cost of Capital for Ontario's Regulated Entities, issued December 11, 2009.

50% reduction in Large Use customers from 2008 to 2010. For the latter, KW Hydro has explained the loss and reclassification of customers.

Customer Count Forecast[4]

2010 Test Year Customer Count Forecast	
Rate Classes	No. of Customers
Residential	78,139
GS<50 kW	7,484
GS>50 kW	1,003
Large User	2
Street Lights	23,299
Unmetered Load	820
TOTAL	**110,747**

Discussion and Submission

Board staff submits that KW Hydro has supported the reduced growth rates from historical levels. There could be an argument that streetlighting and GS < 50 kW customer growth rates should be equal to that of the residential class, but Board staff notes that the difference is small (1.0% for streetlighting and GS < 50 kW, 1.5% for residential). Board staff takes no issue with KW Hydro's forecasts and explanations of the changes to the other classes.

Load Forecast

Background

KW Hydro is seeking Board approval for a test year load forecast as follows:

Load Forecast[5]

Rate Class	(kWh/kW)
Residential	650,038,341 kWh
GS<50 kW	235,461,608 kWh
GS>50 kW	2,231,346 kW
Large User	140,928 kW
Streetlights	46,815 kW
Unmetered Scattered Load	3,287,380 kWh

To develop its load forecast, KW Hydro used a multivariate regression model to determine the relationship between historical system load purchases with weather data,

[4] Exhibit 3/page 41/Table 17 and Exhibit 3/page 45/Table 19

[5] Response to VECC IR #15 d)

calendar factors, and socio-economic data. KW Hydro presented the comparison of the results of the model with actual system load purchases for the period from 1997 to 2005.[6] This evidence indicates that the percentage difference between the model estimate and actual load ranged from -1.1% to 0.6% (annualized) over the regression range.

The following were used as the inputs for the model to generate the weather-normalized system purchases load forecast for the Bridge (2008) and Test years (2009):

- Average monthly Heating Degree Days ("HDD") and Cooling Degree Days ("CDD") from 1996 to 2007 as measured at the Environment Canada, Region of Waterloo International Airport;
- Ontario Real GDP monthly index, based on Ontario Ministry of Finance Economic Outlooks and Fiscal Reviews;
- Population for City of Kitchener and Township of Wilmot; and
- Number of days in the month, number of peak hours and a spring/fall flag (binary variable).

While 2006 to 2008 were excluded from the model estimation, the predicted values from the model based on the values for the exogenous variables in those years were calculated. While KW Hydro documents total system kWh consumption for the 2009 Bridge and 2010 Test years (Exhibit 3/page 6/step 24), Board staff is unable to locate the total system forecasts for these years. However, Board staff accepts how total system load is derivable from the method of load forecasting, customer growth analysis, and weather normalization documented in Exhibit 3.

Discussion and Submission

Multivariate Regression Load Forecasting

Board staff notes that, while an applicant is required to produce its forecast of demand – number of customers, consumption and kW demand – as part of its test year forecast, and that this information is essential for allocating costs amongst customer classes and as the billing determinants to determine rates to recover the revenue requirement, there is little guidance provided on how the forecast has to be developed.

[6] Exhibit 3 / page 13 / Table 7. As discussed later, data from 2006 to 2008 inclusive was omitted from the model estimation because of poorer model results.

In initial Cost of Service applications considered by the Board for 2008 distribution rates, simplified approaches that relied heavily on normalized average consumption ("NAC") were used. The Board accepted these in the absence of better information, but stated its expectations for improved approaches. In some 2009 cost of service applications, attempts to improve on techniques and to introduce more sophisticated econometric methods were used. Board staff views these attempts to adopt more sophisticated techniques as admirable and generally successful. However, econometric modelling of economic phenomena is as much an art as a science. It is not merely a matter of regressing demand against a list of explanatory variables and accepting the outcome if it has a "good enough" fit (i.e. the R^2 is high enough). The estimated model should pass other tests of reasonableness: Are the coefficients of variables plausible in sign and significance? Is the functional form appropriate? Are there signs of model misspecification, such as autocorrelated errors, or implausible coefficients? Do the predicted values forecasted by the model seem reasonable?

KW Hydro, along with other distributors that have filed cost of service applications for 2010 distribution rates, are using econometric multivariate regression modelling to attempt to improve the load forecast. Board staff submits that the approach is of limited success in this and some other applications.

KW Hydro has estimated the regression model with monthly data from January 1997 to December 2005.[7] It states that data from 2006 to 2008 was impacted by the success of CDM programmes and the economic downturn, and that estimating the model with data including that period resulted in a poorer fit.[8]

Board staff is concerned about these outcomes and the approach taken by KW Hydro. Even with the shorter range, the population coefficient is statistically insignificant although it does have a positive sign. Of more concern is the omission of the last three years of data. This most recent actual data could be particularly telling in terms of changes in behaviour. More rigorous approaches to model these impacts and include the recent data would, in Board staff's opinion, have been preferable to omitting the data just because of a poorer fit.

Board staff is also concerned with the reliance of KW Hydro, along with other distributors, to explain load reductions solely as a result of CDM programmes and the economic

[7] The estimated model is documented in Exhibit 3/pp. 10 and in Exhibit 3/Appendix B

[8] Exhibit 3/page 10/ll. 15-19

downturn, without more quantitative support. The economic downturn became apparent in August 2008 and is not a reason for excluding data prior to that time. Admittedly, individual distributors may have suffered losses in specific industry sectors in the communities they serve, but it is also true that a distributor may experience higher than expected growth in businesses and residences.

Further, the CDM success claims would seem at odds with expected behaviour given the nature of electricity service. Electricity service is an essential service, with close to 100% penetration. The price elasticity for subscription will be close to zero. The price elasticity of electricity consumption will be higher than for subscribership, but it will be inelastic. Large businesses that are major consumers of electricity will typically show more price sensitivity than do smaller consumption customers, based on how their electricity consumption factors into the costs of production and hence their competitiveness and profitability.

While noting that changes in electricity prices have been real since restructuring, Board staff believes that the magnitude of the changes are not so high as to suggest the claimed reductions due to CDM. Board staff notes that forecasting models estimated by KW Hydro in this application, and by other distributors in other applications, do not include price variables (for commodity and transportation and delivery, either in aggregate or separately). While this may be done somewhat out of practicality, as each applicant distributor would have to construct such (a) variable(s), and also forecast the price for bridge and test periods, it is indicative of what statisticians and econometricians would technically term model misspecification. Omitting price assumes that electricity demand has a zero price elasticity – which runs counter to all of our assumptions for CDM, smart metering and smart grid. If there is no price sensitivity, then offering CDM programmes, and installing smart meters and implementing TOU pricing to tell customers when they are consuming and sending price signals to shift or reduce load is fruitless. Also, omitting price as a variable and attributing impacts as being due to CDM results in a bias estimate of CDM impacts.

Board staff does not wish to turn all of this into an academic exercise of econometric modelling to estimate price and income elasticities, but suggests that improvements are necessary. Board staff views that these models can and should be improved by further modelling. Attempts to include price as a variable would be a theoretical improvement. It may also be revealing about the price sensitivity of electricity demand, and may also provide insight on CDM effectiveness, net of price changes.

In Decisions for 2008 and 2009 Cost of Service decisions, the Board has signalled its preference for more sophisticated techniques than the Normalized Average Consumption ("NAC") approach first employed. Board staff concurs that, when properly done, more sophisticated techniques can be very informative. However, when poorly designed and implemented, the errors can be serious. It is not certain that a sophisticated econometric model is needed in all cases. Some distributors serve communities with limited economic and population growth. Where growth is constant and low, simpler trending methods, with averaging or other approaches to normalize for weather may be sufficient.

In the case of KW Hydro, however, Board staff submits that simpler techniques would not be adequate. KW Hydro is a large distributor serving a large, diverse and growing customer base. A more sophisticated approach is warranted, but Board staff considers it unfortunate that KW Hydro has limited its efforts in this application. Limiting the data range and excluding the most recent three years of data, and ascribing poorer fit in a blanket manner to "successful" CDM, as a means of improving the model fit, is not ideal.

The NAC method was not tested in this application. Board staff also considers that the average consumption per customer and aggregate consumption, both per customer class, as documented in Exhibit 3/page 41/Table 17 are generally consistent with historical weather-normalized data. While KW Hydro has ascribed effects of CDM for reduced per capita consumption, the impacts are more moderate than are apparent in some other rate applications. On Exhibit 3/page 31, KW Hydro has documented CDM annual impacts of (0.76%) to (1.57%) for residential for 2005 to 2008, and assumed (1.0%) for 2009 and (0.5%) for 2010. Similar moderate impacts for the GS < 50 kW class are documented on Exhibit 3/page 33.

KW Hydro provided estimates of alternative regression models in responses to interrogatories from Board staff and intervenors.[9] In response to Board staff supplemental IR # 30, KW Hydro indicated that it was not proposing any update to its load forecast. KW Hydro did not explicitly address its load forecast in its SIC.

Examination of alternative model estimates does not identify a clearly superior model. KW Hydro's estimated model does not exhibit inconsistent parameters coefficients (i.e. negative population or GDP coefficients), as has been observed in other applications. It

[9] Responses to Board staff IR # 5, Energy Probe IRs # 8 and 9 and VECC IR # 15.

is not clear to staff that the load forecasting model has been used directly to derive the 2009 and 2010 system forecasts, and these are not explicitly identified in the evidence.

While Board staff submits that the system demand forecast model could be improved, and KW Hydro should have made better efforts in this regard, there is no evidence of a better model. Also, Board staff considers that the models that have been considered and documented on the record do not produce estimates materially different from that used by KW Hydro in this application.

Further, Board staff considers that the customer growth, average consumption trends and CDM impacts used by KW Hydro to estimate its load forecast are moderate and reasonable, and consistent with recent historical information. Board staff submits that the load and customer forecasts, as documented in this application, are reasonable, but submits that KW Hydro should improve its techniques in support of its next Cost of Service rate application, or for any application where demand forecasting is required. In other words, KW Hydro's end results are reasonable even if the methodology that they are based on needs improvement.

Weather Normalization

Background

In Exhibit 3/pp. 18-45, KW Hydro has documented how its load forecast is normalized for weather. KW Hydro has normalized revenues and consumption. KW Hydro has documented that the following class sensitivities are based on the Hydro One Networks' study for KW Hydro done as part of the 2006 Cost Allocation Informational Filing:

- Residential and GS < 50 kW — 100% weather sensitive
- GS > 50 kW — 64% weather sensitive
- Large Use, Streetlighting and USL — 0% weather sensitive

KW Hydro has noted difficulties in modelling the relationship between HDD and CDD and sensitivity to develop class specific normalization factors, and has instead estimated a generic class weather normalization factor of 101.23%.

The normalized weather forecast is based on average monthly HDD and CDD for the period from 1997 to 2008. KW Hydro has also documented that it used a 20-year trend

for HDD and CDD as an alternative. The documented evidence suggests similar impacts.

Discussion and Submission

Subject to the comments about KW Hydro's forecasting approach generally, Board staff takes no issue with the weather normalization as used in this Application.

Board staff, however, believes that further work needs to be done by distributors, including KW Hydro, and in cooperation with Hydro One Networks in this area. Estimates that residential and GS < 50 kW consumption is 100% sensitive to weather variation, while Large Use consumption is unaffected by weather variations, would seem extreme. Board staff notes that the reclassification of Large Use customers to the GS > 50 kW class changes their sensitivity from 0% to 64% for regulatory rate-setting purposes. This is clearly an artificial outcome from the reclassification that would not correspond to reality. However, in the final outcome, Board staff notes that the impacts attributable to the weather normalization approach seem reasonable for the purposes of setting rates in this application.

OPERATIONS, MAINTENANCE AND ADMINISTRATION

Background

For the 2010 Test year, KW Hydro is requesting approval of $14,190,476 in OM&A expenses, excluding income and capital taxes, donations and amortization expenses. Total operating expenses for the 2010 test year are forecasted at $25,476,819. This is an increase of 13.79% over KW Hydro's 2008 actuals and 35.94% over 2006 actuals. KW Hydro's 2010 Test Year OM&A also represents an 8.02% increase over the 2009 Bridge year. KW Hydro's OM&A and operating expenses by year is summarized below:

Operating Expenses
Exhibit 4/page 2/Table 1

	2006 Board Approved	2006 Actual	2007 Actual	2008 Actual	2009 Bridge	2010 Test	Average annual variance
							2006 to 2010
Operations	$ 2,315,938	$ 2,585,870	$ 2,733,252	$ 3,016,284	$ 2,799,800	$ 3,051,200	4.22%
Maintenance	$ 2,736,940	$ 3,602,257	$ 3,605,546	$ 3,968,318	$ 4,342,200	$ 4,761,500	7.22%
Billing and Collecting	$ 2,434,491	$ 2,676,674	$ 2,772,666	$ 2,864,738	$ 3,006,500	$ 3,003,200	2.92%
Community Relations	$ 150,090	$ 702,223	$ 791,303	$ 207,677	$ 208,800	$ 256,376	-22.27%
Administrative and General	$ 2,487,622	$ 2,585,071	$ 2,634,695	$ 2,572,119	$ 2,974,400	$ 3,118,200	4.80%
Total OM&A	$ 10,125,081	$ 12,152,095	$ 12,537,462	$ 12,629,136	$ 13,331,700	$ 14,190,476	3.95%
Property Tax	$ 518,048	$ 510,416	$ 527,008	$ 506,522	$ 529,300	$ 550,500	1.91%
Amortization Expense	$ 8,098,266	$ 8,510,357	$ 8,901,061	$ 9,253,850	$ 9,723,672	$ 10,735,844	5.98%
Total Operating Expenses	$ 18,741,395	$ 21,172,868	$ 21,965,531	$ 22,389,508	$ 23,584,672	$ 25,476,820	4.73%

In its SIC, KW Hydro acknowledged reductions to OM&A of $163,976, comprised of:

- Reduction of $49,976 for forecasted LEAP expenses;
- Reduction of $74,000 for a possible oral hearing related to this rate application; and
- Removal of $43,000 of forecasted 2010 expenses for IFRS transition, as these will be tracked in an established deferral account.

In its original Application KW Hydro also provided a table indicating the “drivers” of OM&A increases year over year in Exhibit 4/page 6/Table 3, as replicated below.

Exhibit 4/page 6/Table 3
OM&A Incremental Cost Driver Table

OM&A	**2006 Actual**	**2007 Actual**	**2008 Actual**	**2009 Bridge**	**2010 Test**
Opening Balance	$10,836,360	$12,662,510	$13,064,470	$13,135,656	$13,861,000
OMERS	$506,079	$29,114	$53,016	$34,749	$56,700
CDM Activities	$410,346	$94,023	-$600,395	-$77,708	-$1,600
LEAP Donations	$0	$0	$0	$0	$46,976
A/R Credit Insurance	$0	$10,800	$53,254	-$4,054	$10,000
IFRS	$0	$0	$0	$66,650	$43,000
Rebasing Regulatory Expense	$0	$0	$0	$0	$57,000
Inflationary Payroll Increases	$170,981	$174,240	$180,432	$170,698	$175,435
Other Payroll Changes	$3,600	$1,000	$0	$232,000	$0
Inflation (labour removed)	$86,793	$101,706	$115,511	$121,688	$130,255
PBO Benefit Expenses	$302,941	$18,178	$188,769	$117,537	$20,000
Increase in Bad Debts	$112,099	-$32,496	-$4,469	$43,246	$10,000
Payroll-Related Benefit Costs	$61,548	$54,721	-$3,728	$65,193	$67,260
"Catch up" meter maintenance	$0	$0	$0	$0	$100,000
Increased OT	$348,252	$144,925	$401,416		
Closing Balance	$12,838,999	$13,258,721	$13,448,275	$13,905,656	$14,576,026

KW Hydro documents[10] that its workforce has increased from 167 (2006 actual) to 174 forecasted for the 2010 test year. Increases in staffing are in management and non-management; the Applicant explains that regulatory and other business requirements (i.e. accounting) are one factor. Increased demand and succession planning (apprenticeships to replace retirements) are other factors underlying staffing increases; KW Hydro documents the issues of workforce aging and experience, and the need to train to replace. The Applicant indicates that there are no incentive or bonus compensation plans.

KW Hydro notes that previous collective agreements provided for wage increases of 3.5% and 3.3%; a new collective agreement retroactive to April 1, 2009 includes Wage Increase Factors of 3% per annum, which KW Hydro has factored into forecasted costs.

For non-labour expenses, KW Hydro estimated an inflation adjustment of 2.25%, slightly higher than the inflationary adjustments to rates allowed in previous Board decisions on KW Hydro's rate applications. In response to Energy Probe interrogatory # 23, KW Hydro concurred "that the year-to-date inflation factor for 2010 for non-labour expenses should be used as an adjustment when the Board makes its Decision." In response to Board staff supplemental interrogatory # 29, KW Hydro stated that the same approach used for adjusting for inflation in other rate applications should be used.

Discussion and Submission

With respect to the increases in OM&A and the drivers for increases (and decreases) in OM&A year-over-year, Board staff notes that there were interrogatories posed by Board staff and intervenors seeking further explanation and clarification. In general, Board staff takes no issues with the responses provided by KW Hydro on the record of this application. Subject to the following comments, Board staff has no concerns with respect to KW Hydro's proposed OM&A as documented in its Application and updated in its SIC.

Inflation (Labour and non-Labour)

Board staff submits that KW Hydro has documented and supported its proposed labour expense increases, related to labour agreements and to new and backfilled positions.

[10] Exhibit 4/pp. 38-52

Subject to the clarifications provided in response to Board staff supplemental IR # 29, Board staff submits that non-labour expense inflation be adjusted by the percentage change in GDP-IPI (Final Domestic Demand) for a 12-month period over the immediately preceding twelve month period. In the event that KW Hydro submits its draft Rate Order after the Board has published the annual percentage change in GDP-IPI (FDD) for adjusting distribution rates in IRM applications, as would seem likely, then the published annual percentage change in the GDP-IPI (FDD) can be used. If the draft Rate Order must be submitted prior to publication, the non-labour expense inflation should be calculated based on the percentage change in the GDP-IPI (FDD) for the period from 2008 Q4 to 2009 Q3 relative to the 2007 Q4 to 2008 Q3 period.

Board staff notes that the inflationary adjustments are before productivity improvements, which would be expected to show up in other ways with respect to operating and capital expenses, relative to change in demand. In regard to this Board staff notes that KW Hydro has documented some changes in Full-Time Equivalent Employees ("FTEEs") , but is showing the FTEEs/customer trending downwards over time, from 0.002063 in 2006 to 0.002008 for the 2010 test year. However, at the same time the OM&A cost per FTEE is increasing.[11]

Regulatory Costs and IFRS

KW Hydro has estimated one-time costs for the current 2010 Cost of Service rebasing application at $228,000, which it has included as $57,000 recovered in each of 2010 and three succeeding years of IRM adjustments.[12]

KW Hydro documents that it has budgeted $43,000 for IFRS implementation in 2010, in contrast to $66,650 in 2009. KW Hydro has expensed these budgets as it does not consider the amounts material.[13]

In response to interrogatories, KW Hydro has proposed to remove the amounts for 2009 and 2010, and to record the amounts in Board-approved deferral and variance accounts. KW Hydro has noted that there will be additional costs post-2010 for IT system changes, and additional accounting, consulting and audit services.[14]

[11] Exhibit 4/page 12/Table 4

[12] Exhibit 4/page 34. See also VECC supplemental IR # 55.

[13] Exhibit 4/pp. 36-37

[14] Responses to VECC IR # 32 and Energy Probe supplemental IR # 50.

In its SIC, KW Hydro has documented the following adjustments to OM&A:

- ($49,976) due to removal of forecasted LEAP costs due to the uncertainty of the LEAP initiative at this point in time;
- ($43,000) to remove the 2010 IFRS implementation expenses, which KW Hydro will now track in the authorized deferral account; and
- ($74,000) to remove costs for an oral hearing component of this 2010 Cost of Service hearing, as the application is being dealt with by way of a written process.

Board staff takes no issue with the proposed revisions and regulatory accounting treatment for IFRS-related costs and for regulatory costs related to this 2010 rate application.

Depreciation

Background

In Exhibit 4/pp. 53-55 and Exhibit 2/Tables 12 to 16, KW Hydro has documented its depreciation expenses and depreciation rates. Further, it has documented deviations, with explanations, from the depreciation/amortization rates and policies documented in Appendix B of the *2006 Electricity Distribution Rate Handbook*. In particular, KW Hydro notes the following:

- Normally, a full year's depreciation expense is taken on capital additions during the current year, although KW Hydro states that it has used the half year rule for calculating depreciation expense during the 2010 Test Year; and
- Assets not subject to pooling have amortization calculated based on the month that the asset goes into service.

KW Hydro's depreciation expense calculations and policies were questioned through the discovery phase. In particular, KW Hydro states in the response to Board staff supplemental IR # 28 that "KW Hydro's statement that it calculated its 2010 depreciation expense using the half year rule was in error. KW Hydro's 2010 depreciation expense has been calculated in the same manner that it would use for its own internal reporting."

Discussion and Submission

KW Hydro's approach of calculating depreciation expense is different, and arguably more complicated than that employed for most distributors. KW Hydro's approach was subject

to various interrogatories by Board staff and intervenors.[15] In particular, KW Hydro articulated its approach for using the full year depreciation, and has stated that it is unaware of any Board guidance on the commonly-referred to half-year rule.

Board staff submits that KW Hydro's approach is inconsistent with Board policy and practice. Further, Board staff submits that there is documentation of the Board's expectation with respect to calculation of depreciation expense via the half- year rule.

The Board's policy is articulated on page 15 of the Report of the Board (on the *2006 Electricity Distribution Rate Handbook*), issued May 11, 2005:

> "The Board will include transformer stations expected to be in-service in 2005 among the Tier 1 rate base adjustments. The related adjustment to depreciation expense will also be required. The Board notes that there was no opposition to this adjustment. The Board will require that for this and all other 2005 Tier 1 and 2 rate base adjustments, the rate base and depreciation impacts be assumed to occur mid-year."

The *2006 Electricity Distribution Rate Handbook* provided further articulation of this policy:

> 3.2.2 Tier 1 Adjustments: Rate Base
>
> An applicant making Tier 1 adjustments to rate base will also be required to enter the depreciation impact of the additions or subtractions to the rate base resulting from these adjustments. The additions or subtractions to the rate base should be presumed to occur mid year. [p. 14]

The *2006 Electricity Distribution Rate Handbook* referred to Tier 1 and Tier 2 treatment. Depreciation of historical assets was not considered as the 2006 EDR process for most distributors, including KW Hydro, was on a 2004 historical test year. The depreciation expense was an actual amount, even if it had not been calculated via the routine half-year rule.

[15] Responses to VECC IR # 29, Board staff supplemental IR # 28,

The half-year rule is used by most electricity distributors. Conceptually, this approach aligns the straight-line depreciation with the addition of assets to rate base. Assuming no retirements, averaging the opening and closing Net Fixed Assets equates to assuming that new assets enter service mid-year. The half-year rule for calculating depreciation expense thereby calculates the appropriate straight-line depreciation expense for those assets entered mid-year. In the natural gas sector, Board staff understands that gas distributors add assets to rate base according to the month that an asset enters service, and calculates depreciation expense from that month. In its 2009 Cost of Service application, London Hydro documented that it uses an approach akin to the natural gas sector, and this was accepted in the Board's Decision and Order, issued August 21, 2009, in EB-2008-0235.

The Board's Decision and Order on Greater Sudbury Hydro's 2009 Cost of Service application (Board File No. EB-2008-0230, issued December 1, 2009), directed that utility to use the half-year rule except for determination of depreciation of a new CIS system.

KW Hydro argues, in its response to Board staff supplemental IR # 28, parts b) and c), that the half-year rule will put it at a disadvantage because of the significant addition to its rate base for the Wilmot T.S., and that the application of the half-year rule would reduce the depreciation by half ($412K), or under-recover $823K over four years of rebasing and 3rd Generation IRM.

Board staff acknowledges this, but notes that this is also related to "lumpiness" of some capital investments. As noted below, under Capital Expenditures, KW Hydro's forecasted 2010 capex are higher than both historical and forecast years until the middle of the decade.

Since 2010 capital expenditures are significantly higher than forecasted 2011 and 2012 expenditures, allowing for a full year depreciation expense for the higher 2010 new additions would overstate the depreciation expense for 2011 and 2012, when capital expenditures and capital additions (ignoring any investments related to the Green Energy and Green Economy Act) are lower.

If there was not the "lumpiness" in capital investments, Board staff submits that there should be no issue. As commented below, while staff believes that the Wilmot TS is adequately supported, the high water mark of 2010 capital expenditures is of some concern, and Board staff believes that KW Hydro's management and Board of Directors

have some discretion in the prioritization and the execution of capital projects in a given year.

In summary, Board staff submits that KW Hydro should comply with the Board's policy and practice and use the common half-year for calculating the depreciation expense for new capital additions in the year. As noted in VECC supplemental IR # 56, KW Hydro has estimated its 2010 depreciation expenses would be $10,881,778, a reduction to depreciation expense of $517,066.

Payments in Lieu of Taxes ("PILs")

Background

In its original application, KW Hydro requested a PILs allowance of $2,943,164, consisting of $2,720,994 for Income taxes and $222,170 for capital taxes.[16]
In its SIC, KW Hydro has documented an updated PILs forecast in paras. 45-46 (pages 18-19). First, KW Hydro documents changes to its PILs of ($226,835) due to:

- Elimination of the Ontario Capital Tax effective July 1, 2010[17];
- Reduction of small business tax rate from 5.5% to 4.5% effective July 1, 2010 and elimination of small business tax deduction surtax[18];
- Estimation of Apprenticeship Training Tax Credits;[19] and
- Inclusion of an estimate Provincial Co-operative Education Tax Credit.

KW Hydro also notes that changes to operating expenses and rate base have had a further effect on forecasted 2010 PILs expense, reducing estimated PILs by another ($52,352). KW Hydro has thus forecasted PILs expense of $2,691,869, comprised of $111,067 of Ontario Capital Tax and $2,580,802 for provincial and Federal Income Taxes.

Discussion and Submission

Board staff submits that KW Hydro's proposed PILs methodology and estimate, as amended through responses to interrogatories and documented in its SIC, is reasonable and compliant with Board practice and policy and with known tax legislation.

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[16] Exhibit 4 / page 4 and pages 79-84.
[17] Responses to Board staff IR # 15, Energy Probe IR # 29.
[18] Responses to VECC IR # 30, Energy Probe IR # 36.
[19] Responses to Board staff IR # 16, Energy Probe IR # 30

Board staff notes that other changes to KW Hydro's revenue requirement are possible, due to the Board's findings on KW Hydro's rate base, capital and operating expenditures. Changes to the return on equity in accordance with the new Cost of Capital guidelines, as discussed later in this submission, will also affect net income for the determination of PILs expense. These changes also have a flow-through effect on the PILs allowance which should be recoverable in rates. Board staff submits that KW Hydro should flow through applicable changes in operating and capital costs, and update the PILs allowance to determine the revenue requirement and rates resulting from the Board's Decision in its draft Rate Order filing.

RATE BASE

Background

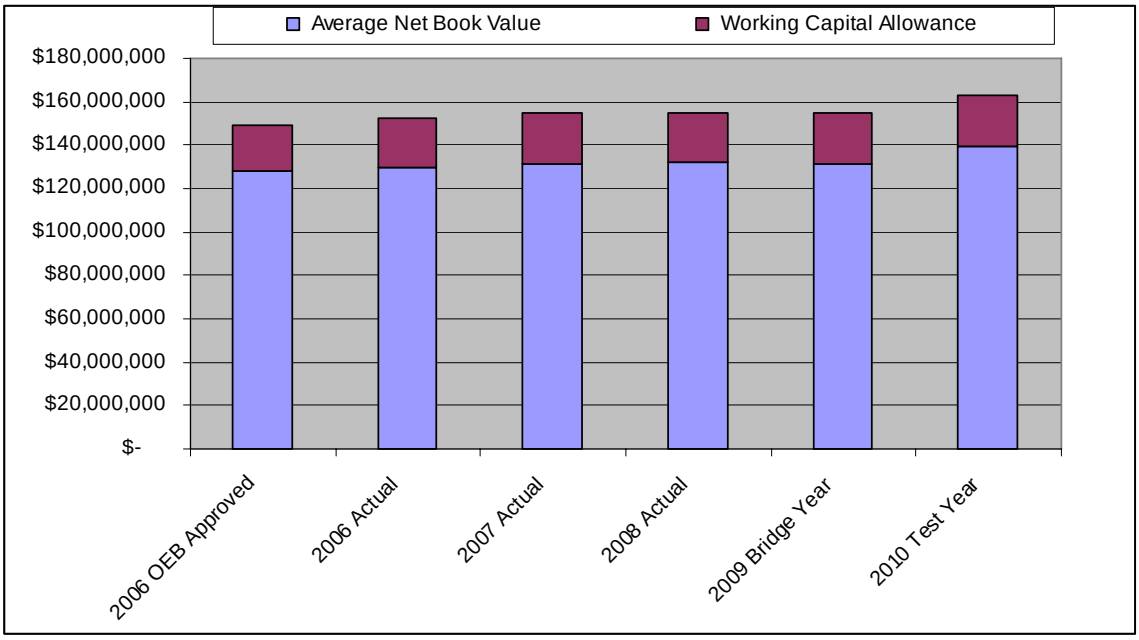
KW Hydro is requesting approval of $163.1 million for its 2010 rate base. This is an increase of $8.6 million (or 5.6%) from KW Hydro's 2008 actuals and $11.0 million (or 7.2%) from 2006 actuals. KW Hydro's historical and proposed rate bases are summarized in the following table[20]:

Table 3
Rate Base

	2006 OEB Approved	2006 Actual	2007 Actual	2008 Actual	2009 Bridge Year	2010 Test Year	Average Annual % Increase 2006 to 2010
Average Net Book Value	$ 127,809,252	$ 129,802,566	$ 131,627,740	$ 131,883,761	$ 131,457,815	$ 139,816,100	1.88%
Working Capital Allowance	$ 21,196,329	$ 22,348,539	$ 23,286,277	$ 22,622,717	$ 23,361,797	$ 23,297,338	1.04%
Rate Base	$ 147,725,922	$ 152,151,106	$ 154,914,017	$ 154,506,478	$ 154,819,612	$ 163,113,438	1.75%

[20] Exhibit 2 / p.1 – Summary of Application

Figure 2
Rate Base



KW Hydro has not included any smart meter spending in rate base.[21]

The increase in net fixed assets, about $19.5M, is primarily due to the Wilmot Township Transformer Station No. 9, a multi-year project, which is scheduled to go into service in 2010.

In its SIC, KW Hydro has acknowledged a reduction in rate base to $163,088,842, corresponding to adjustments to distribution expenses which in turn affect the Working Capital Allowance.[22] It has made no adjustments to its Net Fixed Assets.

Discussion and Submission

Staff notes that the increase in KW Hydro's rate base is due to various capital additions that KW Hydro has documented in its Application, particularly in Exhibit 2 and supporting Appendices. KW Hydro also responded to numerous interrogatories from Board staff and intervenors that sought to understand KW Hydro's capital projects.

Distribution network-related projects deal with both expansion of its network to meet customer growth as well as refurbishment and replacement of existing infrastructure. KW Hydro has also documented increases in fleet and facilities capex as well.

[21] Smart Metering is discussed elsewhere in this submission.
[22] SIC, pp. 7-8, para. 20

Observations on KW Hydro's proposed Working Capital Allowance ("WCA") are made later in the submission. Subject to Board staff's comments in following sections, Board staff takes no issue with KW Hydro's proposed rate base.

Capital Expenditures

Background

In its original application, KW Hydro is proposing capital expenditures of $22,457,000 in 2010, a 11.2% increase over 2006 actuals.

Table 4
Capital Expenditures[23]

	Actuals					Bridge	Test	Forecast	
	2004	2005	2006	2007	2008	2009	2010	2011	2012
CAPITAL EXPENDITURES	$ 16,543,653	$ 15,081,087	$ 14,663,458	$ 16,669,944	$ 17,599,989	$ 19,714,100	$ 22,457,100	$ 19,585,200	$ 20,141,500
Year-over-year change		-$ 1,462,568	-$ 417,625	$ 2,006,485	$ 930,044	$ 2,114,110	$ 2,743,000	-$ 2,871,900	$ 556,300
Percentage change		-8.84%	-2.77%	13.68%	5.58%	12.01%	13.91%	-12.79%	2.84%
Cumulative (2006 to 2010)							53.15%		
Average annual (2006-2010)							11.24%		

KW Hydro has not included any smart meter spending in rate base. 2010 Capital Expenditures are higher for 2010 than for prior years or for 2011 and beyond. The major driver is a new Wilmot Transformer Station that is to go into service in 2010.

Discussion and Submission

As noted above, the new Wilmot T.S. which has been under construction for several years and is scheduled to go into service in 2010 is the major capital expenditure and capital addition. Exhibit 2/page 16/Table 1, and the above Table 4, show 2010 capital expenditures as being significantly above historical year actuals. Examination of KW Hydro's forecasted capital expenditures from 2010 to 2019, described in Exhibit 2/Appendix B, shows that KW Hydro's forecasted capital expenditures for 2010 will not be equalled until 2013 and then from 2016 onwards.[24] In other words, 2010 is a "high water mark" for KW Hydro's capital expenditures, in addition to being a rebasing year.

Board staff believes that KW Hydro has generally supported its various projects. However, and notwithstanding the "lumpiness" of a major investment like the Wilmot TS, Board staff is concerned that 2010 capital expenditures are a "high water mark", and even the amounts above do not include significant expenditures for smart meters. There is no evidence to suggest that KW Hydro should not or cannot achieve its forecasted

[23] Based on Exhibit 2/page 16/Table 1 – 2004-2012 Capital Expenditures Summary

[24] Exhibit 2/Appendix B/page 225 (Estimated Expenditures in current dollars, with no inflation).

capital work in 2010, but there may be a risk of this occurring given the level of increase over previous years.

Board staff recognizes that capital expenditures do not directly affect rates. As they are added to rate base upon becoming "used and useful" (and upon filing a rebasing application with the Board) and hence earning a return on invested capital (and associated tax/PILs recoveries) and the depreciation expense over the expected useful life, capital expenditures do become costs recovered from the ratepayers serviced by those new assets. However, there is an expectation that there should be some constancy of the level of capital expenditures. This is especially true when rates will be adjusted formulaically (i.e. through an IRM mechanism) for a number of subsequent years and the level of capital expenditures and additions is not directly tested in rate-setting. Further, KW Hydro's current practice of calculating a full year's depreciation on new assets, as discussed previously in this submission, exacerbates the situation, as the higher capital expenditures and additions in 2010 will result in a larger rate base and possibly higher depreciation expense in the 2010 test year, and these are both reflected in base rates in subsequent years of IRM adjustments when capital expenditures and additions are expected to be lower.

Board staff makes no submission as to what if any capital programmes should be revised, deferred or cut, and is generally satisfied with the support provided, but does submit that KW Hydro should compare the forecasts against actuals and address year-over-year variances in capital planning in its next Cost of Service rate application.

Working Capital Allowance

In its original application, KW Hydro forecasted a Working Capital Allowance ("WCA") of $23,297,338. KW Hydro has used 15% of OM&A and cost of power in the calculation of working capital. In response to interrogatories, KW Hydro provided a derivation of the Working Capital Allowance. An updated calculation using the RPP as published by the Board on October 15, 2009 was provided in response to Energy Probe IR # 5.

No lead/lag study was provided; however, in response to VECC IR # 7, KW Hydro indicated that it intends to conduct a lead-lag study in preparation for its next cost of service rebasing application, scheduled for 2014. KW Hydro has requested a working capital allowance of $23.3 million for the 2010 test year. Working capital has increased by approximately 1.0% annually from 2006 actual to 2010.

In its SIC, KW Hydro notes that the 2010 proposed WCA is reduced by $24,596 to $23,272,742, as a result of a reduction in its proposed controllable distribution expenses of $163,976.

Discussion and Submission

Board staff takes no issue with KW Hydro's methodology for calculating the WCA. However, Board staff submits that KW Hydro should update the WCA in determining the revenue requirement and associated distribution rates to recover it in preparing its draft Rate Order, to reflect any changes in controllable expenses and load forecasts as determined by the Board in its Decision, as well as to reflect the most current estimate of the RPP commodity price of $0.06215/kWh, from the Board RPP Report of October 15, 2009[25], as well as updates to reflect current uniform and retail transmission prices. Further, Board staff submits that KW Hydro should provide sufficient detail and discussion to aid other parties in understanding the numbers provided and their derivation.

Board staff notes the approach suggested by Energy Probe in its interrogatory Energy Probe # 40. This approach is a more sophisticated method of estimating the Cost of Power component of the WCA by distinguishing between RPP and non-RPP customers. KW Hydro has acknowledged this in the interrogatory response.[26] Board staff acknowledges the improved sophistication of Energy Probe's proposed methodology, but also notes that the determination of the WCA is a rough proxy at this time. Further, with the implementation of smart metering and TOU pricing, both the current approach used in rate-setting and that proposed by Energy Probe will require further adaption to accurately estimate the Cost of Power for estimating cash working capital requirements. The Board may wish to consider that Energy Probe's alternative approach should not be adopted at this time.

Board staff notes that KW Hydro has indicated that it intends to conduct a lead-lag study as part of its next cost of service rebasing application. Board staff supports this initiative.

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[26] Interestingly, KW Hydro made no reference in its SIC to the Cost of Power update provided in responses to Energy Probe IR # 5 and supplemental IR # 40.

[26] Response to Energy Probe supplemental IR # 40 d)

Cost of Capital

Background

In the original Application, KW Hydro proposed its Cost of Capital treatment in accordance with the Board's Cost of Capital guidelines then in effect, as documented in the *Report of the Board on Cost of Capital and 2nd Generation Incentive Regulation Mechanism for Ontario's Electricity Distributors*, issued December 20, 2006.

The Board subsequently revised and documented its guideline Cost of Capital methodology in the *Report of the Board on the Cost of Capital for Ontario's Regulated Utilities* (the "Board's Cost of Capital Report"), issued December 11, 2009, under Board File No. EB-2009-0084. The Board's Cost of Capital Report is a guideline, but departures from the methodology in the Board Report are expected to be adequately supported. While the Board Report was issued subsequent to this Application, the Board's Cost of Capital Report states that the revised guidelines apply to applications for rates effective in 2010 or later and determined through review of Cost of Service applications. Thus the Board's Cost of Capital Report supersedes the guidelines documented in the *Report of the Board on Cost of Capital and 2nd Generation Incentive Regulation for Ontario's Electricity Distributors* and is now applicable to KW Hydro's Application.

In Exhibit 5 of its Application, KW Hydro has proposed its requested Cost of Capital. This is summarized in the following table.

Cost of Capital Parameter	**KW Hydro's Proposal**
Capital Structure	60.0% debt (composed of 56.0% long-term debt and 4.0% short-term debt) and 40.0% equity
Short-Term Debt	1.33%, but to be updated in accordance with section 2.2.2 of the Board Report.
Long-Term Debt	7.62%, reflecting the rate of promissory notes due to the City of Kitchener and Township of Wilmot.
Return on Equity	8.01%, but to be updated in accordance with the methodology in Appendix B of the Board Report.
Return on Preference Shares	Not applicable
Weighted Average Cost of Capital	7.52% as proposed, but subject to change as the short-term and long-term debt rates and ROE are updated per the Board Report at the time of the Board's Decision.

As noted, KW Hydro has affirmed in its Application and its SIC that the Return on Equity, deemed Short-term Debt Rate and deemed Long-Term Debt Rate, as applicable, would be updated based on Bank of Canada, *Consensus Forecasts*, and TSX data for January 2010 in accordance with the methodologies documented in the Board's Cost of Capital Report.

In its Application, KW Hydro states that it is requesting a debt rate of 7.62% on the $70.998 million debt due to the City of Kitchener and $5.965 million due to the Township of Wilmot. KW Hydro states that these notes are callable on demand and should attract the 7.62% in accordance with the policies of the Board Report and the Board's decisions in other applications.[27]

Discussion and Submission

KW Hydro has affirmed that the cost of capital parameters are to be updated in accordance with the Board's Cost of Capital guidelines based on data available at the time of the Board's decision. Board staff submits that KW Hydro's proposals for Cost of Capital, as amended through discovery, comply with the guidelines documented in the Board's Cost of Capital Report.

COST ALLOCATION AND RATE DESIGN

Loss Factors

Background

In its application, as clarified in the response to Board staff IR # 20, KW Hydro has proposed a small decrease to its total loss factor ("TLF") from the current approved 3.29% to 3.20% for secondary metered customers < 5000 kW. Similar decreases are also proposed for other customers.

As corrected in the response to Board staff IR # 20, KW Hydro provided historical data for its Distribution Loss Factors ("DLF") and Supply Facilities Loss Factor ("SFLF") from 2004 to 2008. The DLF and SFLF are multiplied together to yield the TLF. The proposed factors are equal to the respective averages over the initial 5-year period.

[27] Exhibit 5/page 4. Responses to Board staff IR # 18 and VECC IR # 31 provide further information on KW Hydro's debt.

Discussion and Submission

In the updated Tariff Schedule included at pages 37 to 39 of the SIC, KW Hydro documents the following TLFs:

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0320
Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0154
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0226
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0053

Board staff believes that the second row should read "Total Loss Factor – Secondary Metered Customer **>** 5,000 kW". Board staff also notes that the Total Loss Factor – Primary Metered Customer < 5,000 kW, of 1.0226, differs from that provided in the response to Board staff IR # 20, namely 1.0217. Board staff submits that KW Hydro should clarify these points in reply submission.

Customer Classes

Background and Submission

KW Hydro has eight rate classes, comprising the usual six classes (Residential, GS < 50 kW, GS > 50 kW, Large Use, Unmetered Scattered Load, and Street Lighting), together with Standby Power and Embedded Distributor. It is not proposing any changes to the structure of its existing rate classes, but has documented reclassification of some Large Use customers to the GS > 50 kW class. Board staff takes no issue with KW Hydro's proposal on this matter.

Revenue-to-Cost Ratios

Background

KW Hydro is requesting approval of distribution rates that would move its revenue to cost ratios toward the Board's policy range. KW Hydro's application involves a re-balancing of class revenues to better reflect the results of the cost allocation model.

Table 10
Revenue-to Cost Ratios - Exhibit 7/pg. 3/Table 1

Customer Class	From Cost Allocation Model (Run 2)	Column 1 Revised (Transformer Allowance Removed)	From 2010 Cost Allocation Model before Proposed Adjustments	Proposed for Test Year	Revised Proposal (SIC, page 26/Table 14)	Board Target Range
Residential	92.86%	90.28%	88.55%	95.75%	93.90%	85 - 115
GS<50kW	98.06%	95.34%	102.23%	102.23%	102.55%	80 - 120
GS>50kW	131.71%	136.53%	122.09%	107.65%	111.94%	80 - 180
Large User	101.15%	117.46%	112.26%	106.24%	100.22%	85 - 115
Street Lights	29.02%	26.15%	127.28%	107.80%	107.66%	70 - 120
USL	153.04%	150.06%	158.46%	108.03%	110.81%	80 - 120

Table 11
Test Year Revenue Impacts - Exhibit 7/pg. 3/Table 2

Customer Class	Current Revenue	Test Year Revenue Assuming Current Revenue to Cost Ratios	Test Year Revenue Assuming Proposed Revenue to Cost Ratios
Total	$ 33,105,250	$ 39,490,515	$ 39,490,515
Residential	$ 16,950,201	$ 20,307,700	$ 22,011,693
GS<50kW	$ 4,379,622	$ 5,214,790	$ 5,214,790
GS>50kW	$ 10,655,682	$ 12,639,938	$ 11,108,700
Large User	$ 542,452	$ 643,355	$ 608,019
Street Lights	$ 423,821	$ 502,665	$ 424,140
USL	$ 153,472	$ 182,066	$ 123,173

In its SIC, KW Hydro provided updated summaries in Tables 12, 13 and 14, on pages 25 and 26, and also filed its final Cost Allocation model as a separate Microsoft Excel spreadsheet.

Discussion and Submission

KW Hydro states that the embedded distributor class is omitted from the cost allocation, as it believes that it can not be properly reflected in the study. It states that any impact is immaterial, as the embedded distributor's revenue requirement is only about $70K out of 2010 distribution revenues of $35.5 M. From a practical perspective, staff takes no issue in this application, but submits that KW Hydro should address this point and integrate the embedded distributor within any subsequent cost allocation study by the time of its next Cost of Service rebasing application. This is particularly important for KW Hydro as one of the embedded distributor rates is for a "shared line" used to transmit electricity to the embedded distributor and also to serve KW Hydro's retail ratepayers; the costs of this shared line should be more properly allocated between all customers serviced by that asset.

As can be seen above, the joint impacts of the cost allocation and increased revenue requirement mostly impacts the Residential and GS < 50 kW classes. The Large Use class is also impacted, given the decline in customers and load in the 2010 test year. The proposed ratios are all within the range of ratios outlined in the Report of the Board: *Application of Cost Allocation for Electricity Distributors*, EB-2007-0667, issued November 28, 2007. Board staff takes no issue with KW Hydro's proposed cost allocation and revenue-to-cost ratios, as updated and documented in KW Hydro's SIC.

Monthly Fixed Charges and Volumetric Rates

Background

KW Hydro's existing and proposed (original Application and revised per its SIC) distribution rates are documented in the following table:

Table 9
Existing and Proposed Distribution Rates
(excluding Smart Meter Funding Adder)

	2009			2010			2010 (Revised - SIC, Table 15)		
Class	**Fixed**	**Volumetric**		**Fixed**	**Volumetric**		**Fixed**	**Volumetric**	
	(less SM)	**kWh**	**Kw**	**(no SM)**	**kWh**	**Kw**	**(no SM)**	**kWh**	**Kw**
Residential	$ 9.55	$ 0.0123		$ 12.05	$ 0.0162		$ 9.55	$ 0.0182	
GS < 50 kW	$ 25.17	$ 0.0090		$ 25.17	$ 0.0125		$ 25.17	$ 0.0119	
GS 50 to 4,999 kW	$ 232.71		$ 3.5202	$ 232.71		$ 3.7221	$ 232.71		$ 3.8201
Large Users	$ 14,195.83		$ 1.4316	14.195.83		$ 1.8968	14.195.83		$ 1.5946
Streetlighting (per connection)	$ 0.78		$ 4.3948	$ 0.78		$ 4.4012	$ 0.78		$ 4.2889
USL (per connection)	$ 12.59	$ 0.0090		$ 8.34	$ 0.0125		$ 8.34	$ 0.0131	
Embedded Distributor (Waterloo North Hydro)									
- Shared Line (per kW)			$ 0.0999			$ 0.1400			$ 0.1400
- Dedicated Line (per kW)			$ 1.1290			$ 1.2900			$ 1.2900
Standby Power (interim approval)	Applicable volumetric kW rate per contracted demand			Applicable volumetric kW rate per contracted demand			Applicable volumetric kW rate per contracted demand		
Transformer Discount			-$ 0.60			-$ 0.70			-$ 0.70

In its original application, KW Hydro proposes to reduce the monthly fixed charge in the USL class, and increase the monthly fixed charge in the residential class, based on findings of the 2010 cost allocation study. Monthly service charges for other classes remain unchanged (after backing out the smart meter funding adder). The Monthly Service Charges are within the cost allocation range for all classes, except for GS < 50 kW (which is above the range), Large Use (far above the range), and USL which is above.

In its SIC, KW Hydro has adjusted its Residential Monthly Service Charge to

$9.55/month per the response to VECC IR #35,[28] and has also updated its rate model based on revised distribution revenue shares as a result of the discovery process.[29]

Discussion and Submission

Board staff submits that KW Hydro's proposal, as adjusted and documented in its SIC, is reasonable in terms of the fixed/variable proportions of revenues, and is consistent with Board policy as articulated in the Board's Cost Allocation report and in previous decisions.

Rate Design – Embedded Distributor

KW Hydro is a partial host distributor to Waterloo North Hydro Inc., through both a shared LV line and a dedicated LV line; each line has a distinct rate.

KW Hydro has estimated LV expenses to be recovered of $70,145K, an increase from $61,407 in 2007 and $59,513 in 2008. It has also proposed updated embedded distributor rates for Waterloo North, in accordance with the methodology that was proposed, and subsequently approved by the Board, in the 2006 EDR application RP-2005-0020/EB-2005-0387. The proposed rates are $1.29/kW for the Dedicated or Specific line and $0.14/kW for the Shared line. These are increases from existing rates or about $1.13/kW and $0.10/kW for the Dedicated and Shared lines. KW Hydro provided further explanation of the embedded distributor rate treatment and calculation in response to Board staff IRs # 21 and 22.

Background and Submission

Board staff notes that Waterloo North Hydro Inc. was served Notice but did not participate in the proceeding. While the proposed tariffs show material increases for each of the embedded distributor rates, and specifically a 40% increase for the Shared line rate, the increase in revenues expected from the embedded distributor is much less.

In the response to Board staff IR # 21 c), KW Hydro concurred that the embedded distributor rates should be updated at the time of the draft Rate Order to reflect the changes in the Cost of Capital parameters, tax rates or other findings of the Board's decision on this application. While the embedded distributor rates are calculated separately from those of the other customer classes, this treatment would ensure

[28] SIC, page 24/para. 55.
[29] SIC, pp. 26-28/paras. 58-59.

consistent treatment of the rates for this customer compared to adjustments to other classes arising out of the Board's Decision.

Finally, as noted above, Board staff submits that KW Hydro should attempt to fully integrate its embedded distributor as a customer class in any future cost allocation model. The current methodology for establishing rates is based on an approach first accepted by the previous regulator, Ontario Hydro. KW Hydro's embedded distributor rate design was one of the first considered by the Board in the 2006 EDR applications. Subsequently, the Board has dealt with applications for embedded distributor rates using other approaches. The Board's policy to treat embedded distributors as a distinct class is evolving as experience and knowledge is gained by the Board and the industry. Board staff considers it important that KW Hydro similarly evolve its rate treatment of the embedded distributor rates consistent with Board policy and practice. Board staff suggests that this is important for KW Hydro to fully integrate the embedded customer into any future cost allocation study because of the shared line, which costs should be properly allocated between Waterloo North Hydro and KW Hydro's retail customers served by that line.

Rate Design – Standby Power

Discussion and Submission

KW Hydro proposes to maintain the existing standby charge. It has documented that revenues for standby charges declined from $49,993 in 2006 to $311 in 2008 but expects no revenues in 2010 for standby power.[30]

However. KW Hydro is requesting approval of this rate on an interim basis[31], which is a continuation of its status for a number of years. This situation also prevails for other electricity distributors with a Standby Power subclass. Board staff takes no issue with KW Hydro's proposal on this matter and submits that interim approval should be so continued until the Board addresses this issue generically.

[30] Exhibit 3/page 61. Due to load reductions, and probably fuel prices, the standby customer takes power from the grid. This is expected to continue, and so the customer pays distribution charges like other customers of its class rather than for standby power.

[31] Exhibit 8/pg. 24 showing the proposed tariff schedule documents the Standby Power rate as continuing with interim approval.

Rate Design – Transformer Ownership Allowance

Background

KW Hydro proposes to discontinue the transformer ownership allowance for customers who own their own transformers over 1,500 kVA (approximately 1,350 kW). This proposal is based on Board approval of a similar proposal for Guelph Hydro in a prior application (Board File No. EB-2007-0742). KW Hydro has also proposed to increase the credit from the current ($0.60/kW) to ($0.70/kW). Despite the increase in the credit rate, the forecasted credit payments is estimated to decrease to $426,772 from the $959,968) due to the lower number of higher demand customers that would be entitled to it.[32]

Discussion and Submission

Board staff takes no issue with KW Hydro's proposal to increase the Transformer Ownership Allowance Credit to ($0.70/kW) and to eliminate it for customers who own their own transformer at or over 1,500 kVA. Board staff notes that the Board has also approved a similar proposal in London Hydro's 2009 Cost of Service application (Board File No. EB-2008-0235). Board staff understands that the adjustment for transformer ownership is also reflected in the cost allocation and rate design models of KW Hydro's application.

Board staff takes no issue with the increased estimate of the 2010 credit of $426,772, for which recovery is incremental to the Applicant's Base Revenue Requirement to be recovered in distribution rates.

Retail Transmission Service Rates

Background

KW Hydro has proposed adjustments to Retail Transmission Service Rates ("RTSRs") to correspond with the July 1, 2009 changes to the Uniform Transmission Rates ("UTRs"), subject to any modification per the Hydro One Tx rate application that, at the time of application, was before the Board. It has proposed a 5% reduction to the RTSR – Network and a 22% reduction to the RTSR – Connection. KW Hydro notes that it has had reductions to its RTSRs in 2008 and increased its RTSRs in 2009. KW Hydro notes that its current cost-to-revenue ratio is 0.92 for Network and 0.81 for Connection; i.e., it is

[32] Exhibit 3/pp. 58-59

over-recovering transmission services costs. The proposed changes should bring the cost-to-revenue ratios to unity. KW Hydro notes that the proposed rates may be altered based on the Board's phase two decision on Hydro One's 2010 Transmission rate application, for which the Board issued its Decision on December 16, 2009.

Discussion and Submission

Board staff has no concerns with respect to KW Hydro's proposal for adjustments to RTSRs. Board staff does however note that timing may be a consideration and the Board will have to determine which UTRs should be used for the final adjustment of the RTSRs. The July 1, 2009 UTRs are Board-approved and known. While the Board has rendered its Decision on Hydro One Networks transmission revenue requirement for January 1, 2010, a motion on that Decision has been filed and is currently before the Board.

The Board's policy and practice is to direct that the current Board-approved rates be used. As deviations are tracked in the RSVA accounts, there is no shortfall or windfall in the long run, although there could be build-up of a surplus or deficiency that would require review and disposition in a subsequent proceeding.

Specific Service Charges

Background

KW Hydro has proposed the addition of three new specific service charges[33], as follows:

- Collection of Account Charge – No Disconnection ($30.00)
- Meter Dispute Charge plus Measurement Canada Fees (if meter found correct) (30.00)
- Meter Removal without Authorization ($60.00)

With these exceptions, the Applicant is not proposing to change its existing Specific Service Charges.

In response to VECC IR # 24, KW Hydro provided its support for the estimation of the Collection of Account Charge – No Disconnection. The cost analysis would derive estimated causal costs of $27.31, which KW Hydro has rounded up to $30.00.

[33] Exhibit 3/pp. 63-64

Discussion and Submission

Board staff takes no issue with KW Hydro's proposed new Specific Service Charges or the applicable rates. Board staff notes that the proposed rates for the Collection of Account Charge – No Disconnection and Meter Dispute Charge correspond with the default values documented in Schedule 11-3 of Chapter 11 of the *2006 Electricity Distribution Rate Handbook*.

REVENUE OFFSET

Background

Revenue offsets decrease the need for revenue from distribution rates. KW Hydro provided a breakdown of its revenue offsets in Exhibit 3 / page 2/ Table 1 – Operating Revenue Summary table. Further details of historical and forecasted Other Revenues, and explanations for variances, are provided in Exhibit 3/pp. 62-74. KW Hydro's proposed revenue offset, in its original application, is $1,740,295, down from $2,565,890 for 2006, $3,493,786 for 2007 and $2,869,204 for 2008. Decreases in "Revenues from Non-Utility Operations" and "Interest and Dividend Income" account for the majority of the overall decrease.

In its SIC, KW Hydro has amended its forecasted Other Revenues to $1,861,512, to reflect the following:

- Increased forecasted Late Payment Charge revenues of $14,820, per Energy Probe IR #44;
- Increased forecasted Miscellaneous Service Revenues of $11,113 for revenues due to the proposed new Specific Service charges; and
- Increased revenues of $110,284 to gross-up PILs and adjust the rate of return used for Streetlighting revenues received for services provided to the City of Kitchener and the Township of Wilmot.[34]

Discussion and Submission

Board staff submits that KW Hydro's forecast of revenue from sources other than distribution rates, as amended in its SIC, is reasonable.

[34] SIC, page 15/paras. 33-36.

Deferral and Variance Accounts

Background

KW Hydro has requested disposition of a number of its deferral/variance accounts. Due to historical over-collections, mostly with the RSVAs, KW Hydro documents an amount of $5,773,603 (audited December 31/08 balances with carrying costs to April 30/10). Exhibit 9/page 14/Table 2 of the Application is replicated on the following page. KW Hydro has proposed to refund the amounts over four years. The refund would apply to all customer classes except the embedded distributor, where the previous rate riders did not apply because of the separate rate recovery approach used when the rates were established in the 2006 EDR process.

Exhibit 9/page 14/Table 2
Interest Calculation to April 30, 2010 on Deferral and Variance Account Balances

Account Description	Account Number	Principal Amounts as of Dec-31 2008	Interest to Dec31-08	Interest Jan-1 to Dec31-09	Interest Jan1-10 to Apr30-10	Total
RSVA -Wholesale Market Service Charge	1580	-$ 4,915,630	-$ 213,016	-$ 27,036	-$ 9,012	-$ 5,164,694
RSVA -One-time Wholesale Market Service	1582	$ 107,336	$ 17,767	$ 590	$ 197	$ 125,890
RSVA -Retail Transmission Network Charge	1584	-$ 2,529,128	-$ 326,927	-$ 13,910	-$ 4,637	-$ 2,874,602
RSVA -Retail Transmission Connection Charge	1586	-$ 1,770,743	-$ 174,492	-$ 9,739	-$ 3,246	-$ 1,958,220
RSVA - Power	1588	$ 3,032,091	$ 60,685	$ 16,676	$ 5,559	$ 3,115,010
	Sub-totals	-$ 6,076,074	-$ 635,983	-$ 33,419	-$ 11,139	-$ 6,756,616
Other Regulatory Assets - Sub-Account - OEB Cost Assessments	1508	$ 187,866	$ 27,025	$ 1,033	$ 344	$ 216,269
Other Regulatory Assets -Sub-Account -Pension Contributions	1508	$ 925,984	$ 130,394	$ 5,093	$ 1,698	$ 1,063,168
Retail Cost Variance Account -Retail	1518	-$ 100,945	-$ 7,140	-$ 555	-$ 185	-$ 108,825
Retail Cost Variance Account -STR	1548	$ 51,063	$ 5,090	$ 281	$ 94	$ 56,528
Misc. Deferred Debits	1525	$ 14,493				$ 14,493
Conservation and Demand Management Expenditures and Recoveries	1565		$ 269	$ -	$ -	$ 269
Recovery of Regulatory Asset Balances	1590	-$ 628,662	$ 374,384	-$ 3,458	-$ 1,153	-$ 258,888
	Sub-totals	$ 449,799	$ 530,022	$ 2,394	$ 798	$ 983,014
Totals per Column		**-$ 5,626,275**	**-$ 105,961**	**-$ 31,025**	**-$ 10,341**	**-$ 5,773,602**
Accounts Excluded from Disposition						
Smart Meter Capital and Recovery Offset Variance - Sub-Account -Recoveries	1555	-$ 390,339	-$ 36,447	-$ 2,147	-$ 716	-$ 429,649
Smart Meter OM&A Variance	1556	$ 15,403				$ 15,403
Deferred Payments in Lieu of Taxes	1562	-$ 2,085,921	$ 22,183	-$ 11,473	-$ 3,824	-$ 2,079,034
PILs Contra Account	1563	$ 2,305,252	-$ 10,361	$ 12,679	$ 4,226	$ 2,311,796
2006 PILs & Taxes Variance	1592	-$ 219,331	-$ 11,822	-$ 1,206	-$ 402	-$ 232,761
Other Deferred Credits	2425	-$ 50,779				-$ 50,779
	Sub-totals	-$ 425,715	-$ 36,447	-$ 2,147	-$ 716	-$ 465,024
Totals per Column		**-$ 6,051,990**	**-$ 142,408**	**-$ 33,172**	**-$ 11,057**	**-$ 6,238,626**

In its Application, KW Hydro proposed disposition of the proposed deferral/variance account balances by way of one rate rider per customer class and applicable to all customers in that class. In its SIC, KW Hydro has continued its proposal for the single rate rider per class, but has suggested that the deferral and variance account balances be returned to customers over 24 months (i.e., the 2010 and 2011 rate years) rather than over 48 months as originally proposed. This revision is proposed in order to mitigate rate impacts in 2010. KW Hydro states that the proposed rate riders would double in quantum by halving the time period. Other than this, KW Hydro has documented no changes to its proposed deferral and variance account disposition.

In its SIC, on page 7, KW Hydro notes that it is seeking Board approval to use account 1595 – Disposition and Recovery of Regulatory Balances to record disposition of and recoveries of approved deferral and variance account balances. Board staff notes that, per the Board's accounting procedures for the tracking of approved balances as of 2005 and later, account 1595 is the appropriate account to use in this regard.

Account 1588 – Global Adjustment sub-account

KW Hydro has appropriately used the kWh for non-RPP customers as the allocator for the Global Adjustment sub-account of account 1588. In response to Board staff supplemental IR # 31, KW Hydro provided calculations of the rate riders to dispose of the deferral and variance account balances, excluding the Global Adjustment sub-account, and separate rate riders to dispose of the Global Adjustment sub-account balance. KW Hydro explained that it did not have estimates of 2010 non-RPP customer consumption, and used 2008 actuals as the billing determinant. KW Hydro notes that it does not have the capability in its systems to exclude MUSH sector (Municipalities, Universities, Schools and Hospitals) customers if a separate rate rider for disposition of the Global Adjustment sub-account balance is established. Further KW Hydro states that some MUSH sector customers may have voluntarily become non-RPP customers in advance of November 2009. In such cases, where these customers contributed to the Global Adjustment variance, they should also benefit from any refund or payment through the Global Adjustment rate rider.

Discussion and Submission

Board Staff notes that KW Hydro's methodology for the proposed disposition of deferral and variance account balances is consistent with similar disposition of such costs as determined by the Board in recent decisions of other distribution rate applications.

The Board must decide whether the disposition of the balance of the Global Adjustment sub-account of Account 1588 should be subject to a separate rate rider, or, as proposed by KW Hydro, be included in the single rate rider per class applicable to all customers in that class. Recovering the Global Adjustment sub-account balance solely from non-RPP customers more appropriately allocates under-collection from those customers that were undercharged in the first place. Board staff takes no issue with KW Hydro's responses on the applicability or and practicality of excluding MUSH sector customers from any specific Global Adjustment sub-account rate rider. However, Board staff requests that KW Hydro, in its reply submission, confirm whether its billing system can implement a rate rider applicable solely to non-RPP customers, for collecting or refunding the balance of the Account 1588 Global Adjustment sub-account, as calculated in response to Board staff supplementary IR # 31 b).

In addition to establishing a separate rate rider for disposition of the Global Adjustment sub-account, the Board must decide whether the time period over which the rate riders apply should be 48 months, as originally proposed, or 24 months, as suggested by KW Hydro in its SIC. Board staff takes no issue with KW Hydro's revised proposal to refund the amounts over 24 months, and notes the following benefits of such an approach:

- Refunding the amounts over a shorter period reduces inter-generational impacts; and
- The increased rate rider credits will help to mitigate any rate impacts, particularly any arising out of the new Cost of Capital guidelines for 2010 rates.

Board staff concurs that, shortening the time period will, generally, double the quantum of each rate rider. However, there may be some rounding impacts, and KW Hydro should provide a detailed spreadsheet showing the rate rider calculations as part of its draft Rate Order calculation.

Smart Meters

Background

KW Hydro has a current Board-approved smart meter funding adder of $1.00 per month per metered customer. In its Application, KW Hydro is not proposing any adjustment to the funding adder. It has stated that it has become authorized for smart meter deployment under the amended regulation pursuant to and in compliance with the London Hydro RFP process, and was approved a smart meter funding adder of $1.00 per month per metered customer in its 2009 distribution rates application.[35]

In its Application, KW Hydro filed supporting documentation in accordance with section 1.4 of the *Guideline G-2008-0002: Smart Meter Funding and Cost Recovery* (the "Smart Meter Guideline"), issued October 22, 2008. It also provided additional information in response to interrogatories.[36]

KW Hydro is not seeking approval for capital and operating costs incurred to date or in 2010 in this application, but will track actual costs, and revenues received for the funding adder, in established deferral accounts for review and disposition in a subsequent application.

Discussion and Submission

Board staff submits that KW Hydro has complied with the policies and filing requirements of the Smart Meter Guideline and has become authorized under regulation. Actual smart meter expenditures will be subject to review when KW Hydro makes application for disposition of the account balances in a subsequent proceeding. Hence, Board staff takes no issue with KW Hydro's proposal to retain its current smart meter funding adder of $1.00 per month per metered customer.

LRAM/SSM

Background

KW Hydro is seeking LRAM and SSM recovery of $832,174 ($674,100 for LRAM and $158,074 for SSM), to be recovered over four years. The third-party review of the LRAM and SSM calculations is provided in Exhibit 10/Appendix A.

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[35] Exhibit 9/p. 20

[36] Responses to VECC IRs # 38 and 39.

Following the Board's Decision with respect to Horizon Utilities' ("Horizon") application for LRAM and SSM recovery, considered under Board file number EB-2009-0192, and in light of interrogatories posed by Board staff and intervenors, KW Hydro filed updated evidence on November 17, 2009. The updated evidence was filed as an Addendum to Exhibit 10 and consisted of a re-calculated LRAM and SSM recovery of $846,530.12 ($672,536.83 for LRAM and $173,993.29 for SSM).

Discussion and Submission

The Board's Guidelines for Electricity Distributor Conservation and Demand Management (the "Guidelines") issued on March 28, 2008 outlines the information that is required when filing an application for LRAM or SSM.

Board staff submits that KW Hydro's application for LRAM and SSM recovery is consistent with the Board's Guidelines and the Board's Decision on Horizon's application (EB-2009-0192) for LRAM and SSM recovery.

Harmonized Sales Tax

Background and Submission

Staff notes that the provincial sales tax ("PST") and goods and services tax ("GST") will be harmonized effective July 1, 2010 pursuant to Bill 218 which received Royal Assent on December 15, 2009. Unlike the GST, the PST is currently included as an OM&A expense and is also included in capital expenditures. When the GST and PST are harmonized, corporations will realize a reduction in OM&A expenses and capital expenditures that has not been reflected in the current application for 2010 rates.

In response to an interrogatory,[37] KW Hydro stated that it has not made any adjustments to its 2010 OM&A and capital expenditure forecasts to reflect the elimination of the 8% PST costs starting on July 1, 2010. KW Hydro stated that it believes that the HST issue is a generic one that would apply to all distributors, but did acknowledge that it would comply with any Board direction with respect to tracking of incremental reductions through a deferral account. As an alternative, KW Hydro suggested using the average of 2008 and 2009 ITCs and then allocating the resulting average between capital and OM&A based on 2008 and 2009 expenditures; KW Hydro noted that this was not a pure

[37] Response to Board staff supplemental IR # 27

proxy for the incremental impact of harmonization.[38] KW Hydro cautioned that savings from harmonization might not be significant and that there would be additional administrative costs.[39]

Cautions from KW Hydro and other distributors about the administrative burden and costs of harmonization are at odds with the provincial and Federal governments' pronouncements regarding the stimulative and competitive results of harmonization. While the costs and savings are not clear at this point, Board staff submits that tracking of these is warranted at this point and that, per government pronouncements, the potential savings for corporations like KW Hydro could be significant. Accordingly, the Board may wish to consider establishing a variance account to track any savings that may arise.

- All of which is respectfully submitted -

[38] Response to Board staff supplemental IR # 27 b)
[39] Response to Board staff supplemental IR # 27 a)