2012 ELECTRICITY DISTRIBUTION RATES

Entegrus Powerlines Inc.

Application for Disposition and Recovery of Costs Related to Smart Meter Deployment

EB-2012-0289

STAFF SUBMISSION

September 14, 2012

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Board Staff Submission

Entegrus Powerlines Inc.

Smart Meter Cost Recovery Application
EB-2012-0289

Introduction

Entegrus Powerlines Inc. ("EPI") is an electricity distributor licensed by the Ontario Energy Board (the "Board") that is serving 16 communities formerly served by Chatham-Kent Hydro Inc. ("CKH") and Middlesex Power Distribution Corporation ("MPDC"). On July 5, 2012, EPI filed a stand-alone Smart Meter Cost Recovery application (the "Application") requesting Smart Meter Disposition Riders ("SMDRs") and Smart Meter Incremental Revenue Requirement Riders ("SMIRRs"). The proposed effective date for the SMDRs is November 1, 2012 and EPI is requesting that they remain in effect for terms of either one year or three and a half years depending on the service territory, as indicated below in Table 1. The proposed effective date for the SMIRR is November 1, 2012 and EPI is requesting that it remain in effect until its next cost of service application, planned for 2016. The Application is based on the Board's policy and practice with respect to recovery of smart meter costs.[1]

The Board issued its Letter of Direction and Notice of Application and Hearing on July 23, 2012. The Vulnerable Energy Consumers' Coalition ("VECC") requested and was granted intervenor status and cost award eligibility. No letters of comment were received by the Board.[2] The Notice of Application and Hearing established that the Board would consider the Application by way of a written hearing and established timelines for interrogatories and submissions.

Board staff and VECC submitted interrogatories to EPI on August 24, 2012. EPI filed its responses to the interrogatories on September 7, 2012.

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[1] On December 15, 2011, the Board issued *Guideline -2011-0001: Smart Meter Funding and Cost Recovery – Final Disposition* ("Guideline G-2011-0001EPI used Smart Meter Model, Version 2.17 and prepared its application considering recent Board decisions on smart meter cost disposition and recovery.

[2] Response to Board staff Interrogatory 1.

The following submission reflects observations and concerns arising from Board staff's review of the record of the proceeding, which includes the original Application and updates as provided in response to interrogatories.

The Application

General

EPI is an electricity distributor that has been formed through the amalgamations of what were CKH, Dutton Hydro Limited ("Dutton"), MPDC, and Newbury Power Inc. ("Newbury"). On December 16, 2011, the Board granted CKH and MDPC permission to amalgamate.[3] On February 24, 2012, the Board approved the name Entegrus Powerlines Inc. and amended the distribution licence to reflect the name change. This Application is for the recovery of smart meter costs from the Residential, General Service < 50 kW ("GS<50 kW"), and General Service > 50 kW ("GS>50 kW") classes for all four of the former distributors, as applicable.

Approvals Sought

Table 1

Entegrus Proposed Rate Riders

Rates by Zone		SMDR		SMIRR	
		Rate	Duration	Rate	Duration
Chatham-Kent ("CK")					
1	Residential	$0.51	1 Year	$0.28	3.5 Years
2	GS<50 kW	$3.01	3.5 Years	$5.60	3.5 Years
3	GS>50kW	$19.46	1 Year	$11.31	3.5 Years
Strathroy, Mount Bridges & Parkhill ("SMP")					
4	Residential	-$0.69	1 Year	$0.38	3.5 Years
5	GS<50 kW	$3.35	3.5 Years	$5.35	3.5 Years
3	GS>50kW	$13.74	1 Year	$12.31	3.5 Years
Dutton					
7	Residential	$1.20	3.5 Years	$2.33	3.5 Years
8	GS<50 kW	$2.21	3.5 Years	$3.84	3.5 Years
Newbury					
9	Residential	$0.77	3.5 Years	$2.40	3.5 Years
10	GS<50 kW	$1.23	3.5 Years	$3.07	3.5 Years
11	GS>50kW	$13.66	1 Year	$6.66	3.5 Years

[3] Prior to CKH and MPDC amalgamating, the Board granted MDPC permission to acquire Dutton Hydro Limited and Newbury Power Inc. (EB-2008-0350) on February 9, 2009.

As a consequence of the amalgamation, EPI has named four rate zones in its Application; CK from the former CKH, SMP from the former MPDC, Dutton from Dutton, and Newbury from Newbury. The above Table 1 summarizes the rate riders being sought for approval by the four respective rate zones.

All four rate zones had SMFA's with a sunset date of April 30, 2012. EPI did not request a SMFA in its 2012 IRM application.

EPI is not seeking disposition of its stranded meters in this Application, stating that the assets continue to be accounted for in rate base.[4]

Updated Evidence

Through the interrogatory process, the Application, including the Smart Meter Models, Version 2.17 (the "Model") and the proposed rate riders were updated for cost of service parameters, and to recognize benefits in the OM&A.

EPI filed revised Models and SMDRs and SMIRRs to reflect the updated evidence and in response to interrogatories from Board staff and VECC.

Board staff has the following comments on the Application and the updates made to the Application.

Prudence of Smart Meters and Related Costs

Both of the former CKH and MDPC were parties to the Combined Proceeding.[5] The two distributors have received approvals in the past for smart meter costs:

- EB-2007-0063: Joint CKH and MPDC application covering the CK and SMP rate zones to April 30, 2007;
- EB-2008-0155: Joint CKH and MPDC application covering the CK and SMP rate zones to December 31, 2007; and
- EB-2009-0261: CKH application covering the CK rate zone to December 31, 2008.

[4] Application p. 33
[5] *Combined Proceeding EB-2007-0063*

Newbury and Dutton did not commence smart meter applications until 2009 and, with the exception of this Application, no application has been made to recover smart meter costs in these two rate zones.

The costs in this Application are only for those costs up to December 31, 2011 that have not been recovered in the above three applications.[6] 100% of the costs in this Application have been audited.[7]

Smart Meter OM&A Costs

Entegrus has provided a new set of Models reflecting changes arising from interrogatory responses.[8] The revised Models have lower OM&A costs. There is no explanation for the reductions other than stating that they are a result of interrogatories. Board staff cannot trace the reductions to a specific interrogatory, however, it appears to Board staff that VECC Interrogatory 5 describing operational efficiencies may explain some of the reduction. In that interrogatory response, EPI provided estimated values for efficiencies arising from smart meters of $17,550. The total change in OM&A from the smart meter models originally filed in the Application to those filed with the interrogatories is $33,000, almost twice the efficiencies stated in response to a VECC interrogatory.[9] Board staff submits that EPI should provide a more detailed explanation of the changes in OM&A.

In providing the explanation, Board staff would also like EPI to explain the negative cost of $3,660 for the GS>50 class in the CK rate zone.

Smart Meter Unit Costs

In the Application EPI provided tables showing unit costs for previously approved unit costs, unit costs in the Application, and total unit costs for both capital and OM&A by rate zone.[10] However, the unit costs for Residential and GS< 50 kW were not shown separately. In response to interrogatories EPI provided unit

[6] Response to Board staff Interrogatory 2 d.
[7] Response to Board staff 1 a.
[8] Response to Board staff Interrogatory 8
[9] Response to VECC Interrogatory 5
[10] Application pages 25 & 27

capital and unit OM&A costs for Residential and GS<50 kW separately in the same manner as found in the tables in the Application.[11,12]

Capital

Regarding the capital costs documented in the Application, the costs per meter by rate zone fall into the following ranges:

- Residential; from $126 in SMP to $171 in Dutton; and
- General Service <50 kW; from $221 in Newbury to $619 in CK.

The only previously approved Residential units costs ranged from $166 in SMP (as MPDC) to $172 in CK (as CKH). The only previously approved GS<50 kW unit costs was $341 for CK (as CKH).

In total, when the previously approved costs are combined with the costs in the Application, the unit capital costs range as follows:

- Residential from $162 in SMP and Parkhill to $171 in Dutton; and
- General Service <50 kW from $221 in Newbury to $533 in CK.

EPI provided explanations for the levels and variances in costs.[13,14] Contributing factors to the costs were travel time and hard-to-reach customers, the higher more variable costs of poly-phase meters for GS<50 customers, the mix of poly-phase meters, and the non-contiguous nature of the service territory.

In explaining the variability of the costs, EPI stated that the range in Residential unit costs was small, and that the mix of meter types for GS<50kW contributed to the variances in that class.

Board staff finds that these explanations are reasonable.

OM&A

Regarding the OM&A expenses documented in the Application, the costs per meter by rate zone fall into the following ranges:

[11] Response to Board staff Interrogatory 3
[12] Response to VECC Interrogatory 2
[13] Response to Board staff Interrogatory 4 a.
[14] Response to VECC Interrogatory 1 d.

- Residential Unit OM&A Range from $6 in Dutton and Newbury to $146 in CK; and
- General Service <50 kW Unit OM&A Costs range from $6 in Dutton and Newbury to $18 SMP.

The only previously approved Residential unit costs ranged from $6 in SMP (as MPDC) to $31 in CK (as CKH). The only previously approved GS<50 kW unit OM&A cost was $25 for CK (as CKH).

In total, when the previously approved costs are combined with the costs in the Application, the unit OM&A costs range as follows:

- Residential from $6 in Dutton and Newbury to $38 in CK; and
- General Service <50 kW from $6 in Dutton to $15 in CK to $18 in Newbury.

By way of explanation EPI stated that, in spite of early adaption, additional troubleshooting costs on the entire system, including previously installed smart meters occurred. The majority of these challenges did not become apparent until 2009 when EPI began reading meters for billing purposes, as opposed to the previous method of CKH and MPDC reading meters manually[15]. This gave rise to the $146 unit costs for OM&A in the CK rate zone.

The deployment challenges encountered are described in further detail on pages 21-23 of the Application.[16] Specifically EPI pointed out the following class specific issues:

- **Residential;** variations relate to installation timing. Dutton & Newbury were installed after network issues were resolved, and therefore had lower costs;
- **General Service < 50 kW;** variations relate to installation timing and network issues; and
- **General Service > 50 kW;** negative unit cost due to operational efficiencies. Variances are case specific issues.

Board staff does not take issue with the provided explanations.

[15] EB-2009-0261, Exhibit 4, Tab 2, Schedule 2, page 6, line 9
[16] Response to VECC 2 c.

Total Unit Costs

EPI states that the total unit costs for smart meters deployed are $233.[17] This is based on average investment costs of $201 and average OM&A costs of $32. Board staff notes that while this may be somewhat higher than some other applications, prior to amalgamating into EPI, CKH and MPDC were named as priority Installations in O. Reg. 428/06 for early deployment of smart meters. Since then, some network problems arose later in 2009 requiring troubleshooting.[18] EPI also pointed out that the mix of metering in the GS<50 kW class and the non-contiguous territory also contributes to higher costs for EPI.

The Board has reported that, in total for Ontario, 4,382,194 smart meters have been installed, with an investment cost of $994,426,187 as of September 30, 2010. This results in an average investment cost of $227.[19] Based on this, Board staff does not consider EPI's costs for smart meters inappropriate.

Cost of Capital Parameters

EPI filed eleven Models, one for each rate class in each rate zone. Board staff submits that the cost of capital parameters on Tab 3 SMP for GS>50 are not correct. EPI filed with the following proposed costs of capital parameters for this class, and through an interrogatory, updated the parameters as follows:[20]

Table 2

Cost of Capital Parameters

SMP GS>50 kW

	2006	2007	2008	2009	2010	2011	2012
Application							
1 LTD	7.25%	7.25%	7.25%	5.87%	5.87%	5.87%	5.87%
2 STD				2.07%	2.07%	2.07%	2.07%
3 Equity	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%	9.85%
Interrogatory							
4 LTD	7.25%	7.25%	7.25%	5.87%	5.87%	5.87%	5.87%
5 STD							
6 Equity	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%	9.85%

[17] Response to VECC Interrogatory 8
[18] Response to VECC 2 c.
[19] *Monitoring Report Smart Meter Investment – September 2010 March 3, 2011*
[20] Response to Board staff Interrogatory 5

The rates for the SMP rate zone, formerly served by MPDC, were rebased in the 2006 EDR and have only been adjusted through 2nd Generation IRM applications until the rate zone became part of EPI in 2012. As such, Board staff submits that the proper debt rate and equity return rate would be 7.25% and 9.00% respectively. Those are the cost of capital parameters approved by the Board in MPDC's 2006 EDR rates application. Board staff notes that these are the rates that EPI has correctly used for the Residential and GS<50 kW classes for the SMP service area.

Costs Beyond Minimum Functionality

EPI has stated that it is requesting recovery of Type B and Type C costs beyond minimum functionality.[21] Type B expenditures are costs to deploy smart meters to all customers in the GS>50 kW customer class. Type C expenditures are costs for TOU Rate Implementation and MDM/R Integration.

Regarding Type B expenditures, EPI has stated that there are benefits for implementing smart meters to GS>50 kW customers. The average cost for a deployed GS>50 kW smart meters is $1,074, while the operating costs are $13; less than that for a residential smart meter in the CK zone. Board staff notes that the Board has approved costs for smart meters for GS>50 kW in other applications.[22]

Board staff submits that, regarding Type C expenditures, the expenses incurred for TOU implementation and MDM/R integration were required to complete the smart meter program, and that the Board has approved in other smart meter applications. Board staff takes no issue with the proposal for recovery or for the quanta of capital and OM&A expenses "beyond minimum functionality" that EPI is proposing in this Application.

[21] Application, pages 29 & 30
[22] Horizon Utilities Corp. EB-2011-0417; Burlington Hydro Inc. EB-2012-0081; and PUC Distribution Inc. EB-2012-0084

Rate Riders

Cost Allocation

EPI separated its costs into each rate class by rate zones. This approach resulted in 11 separate Models, one for each rate class within each rate zone. EPI stated that general OM&A expenses are allocated on a per meter basis to all classes. Board staff submits that this approach provides a reasonable allocation of costs to the customer classes.

Interest

Tab 9 SMFA, SMDR SMIRR of the Model provides an option for calculating interest. Interest can either be calculated on monthly balances, or on average annual balances. EPI has chosen to calculate interest on the average annual balance, as opposed to monthly balances. In response to why the annual method was used, EPI states that given the composition and evolution of its service territory, and various rate territories which resulted in 11 cost allocations' that EPI chose the less complex annual method.[23]

Board staff accepts this response. While the monthly approach would be more accurate, Board staff notes that the effort to break out OM&A expenses into three rate classes separately for each of the four rate zones would outweigh the increase in accuracy by calculating interest monthly rather than annually. Board staff submits that the proposed interest calculation is appropriate.

Rider Period

EPI has proposed that the riders be in effect for either one year or three and a half years, depending on circumstances. Board staff has reviewed the proposal and finds that unless an SMDR is in place for 3 ½ years there will be a large rate impact. By way of example the Dutton residential rider is $1.20 over 3 ½ years, over one year it would $4.20. Regarding the SMIRR, Board staff notes that this rider should be in effect until EPI's next cost of service application in 2016, which is 3 ½ years from the proposed effective date of November 1, 2012 for the SMIRR. Board staff submits that the proposed periods for the riders are reasonable.

[23] Response to Board staff Interrogatory 7

Stranded Meters

EPI is not seeking disposition of its stranded meters in this Application, stating that the assets continue to be accounted for in rate base. [24] EPI stated that CKH stranded meter costs of $126,000 to December 31, 2008 were approved in its 2010 Cost of Service Application, EB-2009-0261. EPI stated that it estimates that the net book value on December 31, 2015 for stranded meters will be $324,490. This would be addressed for disposition in its next cost of service application expected for 2016 rates. Board staff submits that this is an appropriate treatment for stranded meters.

Operational Efficiencies

EPI has identified efficiencies of $17,550. Board staff suggests that with full deployment of smart meters in all rate zones additional efficiencies from smart meters might be found. EPI is not expected to file its next cost of service application until 2016. By that time, it is possible that more operational efficiencies would have been found. Board staff submits that EPI should be prepared to address any operational efficiencies due to smart meter and TOU implementation in its next cost of service rebasing application.

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Subject to the above comments, Board staff submits that EPI's Application is consistent with Guideline G-2011-0001, *Smart Meter Funding and Cost Recovery – Final Disposition*, reflects prudently incurred costs and is consistent with Board policy and practice with respect to the disposition and recovery of costs related to smart meter recovery.

- All of which is respectfully submitted -

[24] Application p. 33