



December 10, 2010

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, 27th Floor  
Toronto, ON M4P 1E4

**Re: Middlesex Power Distribution Corporation - Main  
2011 Incentive Rate 2nd Generation Mechanism Application  
OEB Case Number EB-2010-0098**

Dear Ms. Walli:

Please find enclosed Middlesex Power Distribution Corporation's responses to all parties' interrogatories relating to the above mentioned file.

If you have any further questions, please do not hesitate to contact David Ferguson at (519) 352-6300 x558 or via email [davidferguson@ckenergy.com](mailto:davidferguson@ckenergy.com).

Regards,

*[Original Signed By]*

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Senior Regulatory Specialist  
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**CC: David Kenney, President of Chatham-Kent Hydro Inc.  
Chris Cowell, Chief Financial & Regulatory Officer  
David Ferguson, Director of Regulatory and Risk Management**

**Board Staff**

**Question 1**

**Ref: IndEco Third Party Report, Page 6-8**

Below Table 2 – *Cumulative net program energy savings and demand savings by rate class within the LRAM claim period* – it states that energy savings for the 2009 OPA programs are preliminary and that they will be updated when final program results become available. The preliminary 2009 program results account for \$11,069 of Middlesex’s total LRAM claim. In the Board’s Guidelines for Electricity Distributor Conservation and Demand Management issued on March 28, 2008, it states at section 5.3 that when applying for LRAM, a distributor should ensure that sufficient time has passed to ensure that the information needed to support the application is available.

- a) When does Middlesex expect to receive the final 2009 program results from the OPA?
  - b) Please provide the rationale for including preliminary program results in Middlesex’s LRAM claim.
  - c) Please describe the process for updating the information with the final 2009 program results Middlesex receives from the OPA.
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**Response:**

- a) MPDC – Main received the final results for 2009 OPA programs that ran between January 1, 2009 and December 31, 2009 in an email sent by OPA staff on December 1, 2010.

The updated energy and demand results are contained in the file attached named: 2006-8 Final+2009 Preliminary.OPA CDM Results.Middlesex Power Distribution Corporation.xls. The updated LRAM claim is provided in response (c) below.

- b) When the LRAM claim was filed on October 1, 2010 as part of MPDC – Main’s 2011 IRM Adjustment, it appeared that the final 2009 OPA results would be available in ample time to update the LRAM claim. Furthermore, including preliminary information on 2009 OPA programs would produce a preliminary LRAM claim much closer to the final LRAM claim than would excluding 2009 OPA program results altogether. We also expected the changes between preliminary and final results to be relatively minor and easily integrated into an updated claim.

It was considered more beneficial to all parties involved to include 2009 OPA program results in this LRAM claim as opposed to including them in a future LRAM claim. For customers, rate increases are more moderate if LRAM is more quickly recovered. A timelier LRAM claim is fairer to customers – particularly those entering or leaving the service area – since it reduces intergenerational inequities related to conservation activities.

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- c) In light of the fact that the final 2009 OPA program data are now available, MPDC – Main has updated the LRAM claim to reflect this new information.

The tables below show the original LRAM claim and the LRAM claim calculated using the final 2009 OPA program data, and the rate riders based on the revised LRAM claim.

Rate class	LRAM claim as originally filed	<b>LRAM claim with final 2009 OPA program results</b>
Residential	\$70,888	<b>\$71,914</b>
GS < 50kW	\$6,205	<b>\$3,787</b>
GS 50-4,999kW	\$13	<b>\$13</b>
Total	\$77,105	<b>\$75,714</b>

Rate class	Claim	kWh	kW	Rate/kWh	Rate/kW
Residential	\$71,914	56,192,789	-	\$0.00128	
GS < 50kW	\$3,787	18,279,724	-	\$0.00021	
GS 50-4,999kW	\$13	84,572,093	231,274		\$0.0001
	\$75,714				

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**Board Staff****Question 2**

**Ref: 2011 IRM Rate Generator Model, Sheet 3.3 Current Rate Rider for Global Adjustment Sub-Account Disposition – Delivery Component**

Sheet C3.3 is reproduced below.

Rate Rider	GA Sub-Acct - Delivery					
Sunset Date	April 30, 2011 DD/MM/YYYY					
Metric Applied To	All Customers					
Method of Application	Distinct Volumetric					
Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric	
Residential	Yes	0.000000	Customer - 12 per year	0.001800	kWh	
General Service Less Than 50 kW	Yes	0.000000	Customer - 12 per year	0.001800	kWh	
General Service 50 to 4,999 kW	Yes	0.000000	Customer - 12 per year	0.656600	kW	
Large Use	Yes	0.000000	Customer - 12 per year	0.789200	kW	
Unmetered Scattered Load	No	0.000000	Connection - 12 per year	0.000000	kWh	
Sentinel Lighting	No	0.000000	Connection - 12 per year	0.000000	kW	
Street Lighting	No	0.000000	Connection - 12 per year	0.000000	kW	

- a) Middlesex Power – Middlesex’s current Tariff of Rates and Charges does not match with the Tariff of Rates and Charges prepared in the 2011 IRM2 Rate Generator Workform. Board Staff notes that the Volumetric Amount for “Sentinel Lighting” and “Street Lighting” classes are different from those that appear on the approved tariff sheet.

If the rates are correct, please explain why. If not, please identify the correct rates for “Vol Amount” for Sentinel Lighting and Street Lighting classes and submit the revised Sheet C3.3 of the Rate Generator Workform and Board staff will make the necessary changes to the model.

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**Response:**

- a) Middlesex – Main notes that the Global Adjustment Sub-Account Volumetric Amounts shown above agree to the approved EB-2009-0202 tariff sheet. Specifically, in EB-2009-0202, Global Adjustment Sub-Account Volumetric Amounts were approved for only the Residential, GS < 50 kW, GS 50 – 4,999 kW and Large Use rate classes. Accordingly, Middlesex – Main submits that the nil Volumetric Amounts for the Sentinel Lighting and Street Lighting rate classes are correct.

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**Board Staff****Question 3**

Ref: 2011 IRM Rate Generator Model, Sheet 4.1 Current Rates and Charges  
Sheet C4.1 Current Rates & Charges General is reproduced below.

CURRENT MONTHLY RATES AND CHARGES		
<b>Residential</b>		
<b>Monthly Rates and Charges - Delivery Component</b>		
Service Charge	\$	13.73
Service Charge Smart Meters	\$	1.26
Service Charge Smart Meter Disposition 2 – effective until until next cost of service application	\$	1.23
Service Charge Smart Meter Disposition 3 – effective until until next cost of service application	\$	0.77
Service Charge Tier 2 Recovery – effective until April 30, 2011	\$	(0.35)
Distribution Volumetric Rate	\$/kWh	0.0139
Rate Rider for Global Adjustment Sub-Account Disposition (2010) - Effective until April 30, 2011 Applicable only for Non-RPP Customers	\$/kWh	0.00180
Low Voltage Volumetric Rate	\$/kWh	0.0003
Distribution Volumetric Deferral Variance Account Disposition (2010) – effective until April 30, 2011	\$/kWh	(0.0034)
Distribution Volumetric Tier 2 Recovery – effective until April 30, 2011	\$/kWh	(0.0004)
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0058
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0047
<b>Monthly Rates and Charges - Regulatory Component</b>		
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

The descriptions for all rate classes are not identical to Middlesex's current Tariff sheet:

- a) If the descriptions provided are correct, please provide evidence supporting the new descriptions. If the descriptions are incorrect, please re-file sheet C4.1 with the correct descriptions and Board staff will make the necessary changes to the model.

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**Response:**

- a) MPDC- Main acknowledges that the descriptions do not agree with the rate schedule. The descriptions used were from the model provided. We have subsequently exported and updated the Current Monthly Rates and Charges Schedule.

Please see updated file attached named: MPDC\_CurrentTariffsSheetC4-1\_20101202.xlsx.

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**Board Staff****Question 4:****Ref: 2011 Transmission Service Rates ("RTSR") Adjustment Workform**

Sheet B1.1 – Rate Class and 2010 RTSR Rates is reproduced below.

Rate Class And 2010 RTSR Rates				
Enter Rate Group and Rate Class in the same order as listed on your current Tariff sheet and Rate Generator.				
Enter the RTSR-Network and RTSR-Connection rates as approved on your current Tariff sheet.				
Rate Group	Rate Class	Vol Metric	RTSR - Network	RTSR - Connection
RES	Residential	kWh	0.0058	0.0047
GSLT50	General Service Less Than 50 kW	kWh	0.0053	0.0042
GSGT50	General Service 50 to 499 kW	kW	2.1259	1.6890
LU	Large Use	kW	2.5001	2.1174
USL	Unmetered Scattered Load	kWh	0.0053	0.0042
Sen	Sentinel Lighting	kW	1.6113	1.3331
SL	Street Lighting	kW	1.6030	1.3057

- a) Middlesex Power – Middlesex’s current Tariff of Rates and Charges does not match with the Tariff of Rates and Charges prepared in the 2011 IRM2 RTSR Adjustment Workform. Board Staff notes that the rate class “General Service 50 to 499 kW” does not appear on the approved 2010 tariff sheet, rather the class is identified as General Service 50 to 4,999 kW. Also, on the current tariff sheet there is a class identified as General Service 50 to 4,999 kW – Interval Metered which does not appear on Sheet B1.1. Please explain the discrepancies or in the alternative, please re-file the Workform with the correct classes.
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**Response:**

- a) MPDC agrees rate class ‘General Service 50 to 499kW’ should be labeled as “General Service 50 to 4,999 kW’ and has updated the Workform accordingly.  
Please see attached updated file named: Middlesex 2011 RTSR Adjustment Workform Revised 20101210.xls.

On MPDC - Main’s current Rates and Tariffs ‘General Service 50 to 4,999 kW – Interval Metered’ does not appear as a separate rate class. As in previous Board-approved rate applications, the network and connections charges are itemized separately for the interval metered customers within the ‘General Service 50 to 4,999 kW’ rate class.

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**Board Staff****Question 5:****Ref: 2011 Transmission Service Rates ("RTSR") Adjustment Workform**

Sheet F1.1 – IRM RTSR Adjustment Calculation - Network is reproduced below.

**IRM RTSR Adjustment Calculation - Network**

The purpose of this sheet is to update re-aligned RTSR-Network rates to recover forecast wholesale Network costs.

Rate Class	Vol Metric	Current RTSR - Network	Proposed RTSR - Network	RTSR - Network Adjustment
		(A) Column H Sheet B1.1	(B) Column S Sheet E1.1	C = B - A
Residential	kWh	0.0058	0.0061	0.0003
General Service Less Than 50 kW	kWh	0.0053	0.0055	0.0002
General Service 50 to 499 kW	kW	2.1259	2.2251	0.0992
Large Use	kW	2.5001	2.6167	0.1166
Unmetered Scattered Load	kWh	0.0053	0.0055	0.0002
Sentinel Lighting	kW	1.6113	1.6865	0.0752
Street Lighting	kW	1.6030	1.6778	0.0748

- a) Middlesex Power – Middlesex’s current Tariff of Rates and Charges does not match with the Tariff of Rates and Charges prepared in the 2011 IRM2 RTSR Adjustment Workform. Board Staff notes that the rate class “General Service 50 to 499 kW” does not appear on the approved 2010 tariff sheet, rather the class is identified as General Service 50 to 4,999 kW. Also, on the current tariff sheet there is a class identified as General Service 50 to 4,999 kW – Interval Metered which does not appear on Sheet F1.1. Please explain the discrepancies or in the alternative, please re-file the Workform with the correct classes.
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**Response:**

See response to Board Staff, Question 4.

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**Question 6:****Ref: 2011 Transmission Service Rates ("RTSR") Adjustment Workform**

Sheet F1.2 – IRM RTSR Adjustment Calculation - Connection is reproduced below.

<b>IRM RTSR Adjustment Calculation - Connection</b>				
The purpose of this sheet is to update re-aligned RTSR-Network rates to recover forecast wholesale Network costs.				
Rate Class	Vol Metric	Current RTSR - Connection	Proposed RTSR - Connection	RTSR - Network Adjustment
		(A) Column J Sheet B1.1	(B) Column S Sheet E1.2	C = B - A
Residential	kWh	0.0047	0.0049	0.0002
General Service Less Than 50 kW	kWh	0.0042	0.0044	0.0002
General Service 50 to 499 kW	kW	1.6890	1.7631	0.0741
Large Use	kW	2.1174	2.2102	0.0928
Unmetered Scattered Load	kWh	0.0042	0.0044	0.0002
Sentinel Lighting	kW	1.3331	1.3916	0.0585
Street Lighting	kW	1.3057	1.3630	0.0573

- a) Middlesex Power – Middlesex's current Tariff of Rates and Charges does not match with the Tariff of Rates and Charges prepared in the 2011 IRM2 RTSR Adjustment Workform. Board Staff notes that the rate class "General Service 50 to 499 kW" does not appear on the approved 2010 tariff sheet, rather the class is identified as General Service 50 to 4,999 kW. Also, on the current tariff sheet there is a class identified as General Service 50 to 4,999 kW – Interval Metered which does not appear on Sheet F1.2. Please explain the discrepancies or in the alternative, please re-file the Workform with the correct classes.
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**Response:**

See response to Board Staff, Question 4.

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**Board Staff****Question 7****Ref: 2011 Transmission Service Rates ("RTSR") Adjustment Workform**

Sheet B1.2 – 2009 Distributor Billing Determinants is reproduced below.

**2009 Distributor Billing Determinants**

Enter the most recently reported RRR billing determinants

Loss Adjusted Metered kWh **Yes**Loss Adjusted Metered kW **No**

Rate Class	Vol Metric	Metered kWh A	Metered kW B	Applicable Loss Factor C	Load Factor D = A / (B * 730)	Loss Adjusted Billed kWh E = A * C
Residential	kWh	56,192,789	0	1.0608		59,609,311
General Service Less Than 50 kW	kWh	18,279,724	0	1.0608		19,391,131
General Service 50 to 499 kW	kW	84,572,093	231,274	1.0608	50.12%	89,714,076
Large Use	kW	17,181,839	38,952	1.0045	60.46%	17,259,157
Unmetered Scattered Load	kWh	304,425		1.0608		322,934
Sentinel Lighting	kW	42,498	119	1.0608	48.95%	45,082
Street Lighting	kW	1,464,757	4,656	1.0608	43.12%	1,553,814
Total		178,038,125	275,001			187,895,505

- a) Please explain why the billing determinants in Columns A and B (Metered kWh and Metered kW) are not identical with the values reported in the 2009 RRR filing 2.1.5 customer demand and revenue filing.
- b) If Middlesex Power – Middlesex is of the view that the data included in the application is more appropriate to use, please explain why. If not, please re-file Sheet B1.2 with the correct data and Board staff will make the necessary changes to the model.

**Response:**

- a) On April 30, 2009, MPDC purchased Newbury Power Inc. and Dutton Hydro in MAAD EB-2008-0350 and MAAD EB-2008-0322, respectively. As noted on page 3 of the EB-2010-0098 IRM Application Manager's Summary, the billing determinants used in the 2011 IRM Application do not agree to the 2009 RRR filings. Specifically, the 2009 billing determinants used in the EB-2010-0098 RTSR Adjustment Workform represent 12 months of activity of MPDC – Main, but excludes any activity for MPDC – Dutton and MPDC – Newbury. In contrast the RRR filing includes 12 months of activity for MPDC – Main and 7 months post-acquisition activity for MPDC – Dutton and MPDC – Newbury.

Please see Attachment 1, specifically columns (B) and (J) for a reconciliation between billing determinants and RRR filing.

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- b) MPDC – Main utilized only service area specific billing determinants for RTSR's due to the existence of separate loss factors for MPDC – Main, MPDC – Dutton and MPDC – Newbury. Accordingly, MPDC – Main believes that the data included in the application is appropriate because it results in billing determinants that are consistent with the service territory of MPDC – Main.

**Board Staff**

**Question 8**

**Ref: 2011 Deferral and Variance Account Adjustment Workform**

**Sheet B1.3 Rate Class and Billing Determinants**

Rate Class and Billing Determinants						
2009 Audited RRR						
Rate Group	Rate Class	Fixed Metric	Vol Metric	Metered kWh	Metered kW	Billed kWh for Non-RPP customers
RES	Residential	Customer	kWh	62,084,949		14,521,638
GSLT50	General Service Less Than 50 kW	Customer	kWh	22,167,783		3,644,434
GSGT50	General Service 50 to 4,999 kW	Customer	kW	86,157,573	235,111	86,157,573
LU	Large Use	Customer	kW	17,181,839	38,952	17,181,839
USL	Unmetered Scattered Load	Connection	kWh	304,425		
Sen	Sentinel Lighting	Connection	kW	43,379	119	
SL	Street Lighting	Connection	kW	1,642,663	5,162	169,067

- Please explain why the billing determinants for the Metered kWh and Metered kW (Columns J & K) are not identical with the value reported in the 2009 RRR filing 2.1.5 customer demand and revenue filing.
- If the data provided is correct, please provide evidence supporting the data. If the data is incorrect, please re-file sheet B1.3 with the correct data and Board staff will make the necessary changes to the model.

**Response:**

- On April 30, 2009, MPDC purchased Newbury Power Inc. and Dutton Hydro in MAAD EB-2008-0350 and MAAD EB-2008-0322, respectively. As noted on page 3 of the EB-2010-0098 IRM Application Manager's Summary, the billing determinants used in the 2011 IRM Application do not agree to the 2009 RRR filings. For the 2011 EB-2010-0098 Deferral and Variance Account Adjustment Workform, the 2009 billing determinants used represent 12 months of activity of MPDC – Main, MPDC – Dutton and MPDC – Newbury. In contrast the RRR filing includes 12 months of activity for MPDC – Main and 7 months post-acquisition activity for MPDC – Dutton and MPDC – Newbury.

Please see Attachment 1, specifically columns (I) and (J) for a reconciliation between billing determinants and RRR filing.

- b) For the Deferral and Variance Account Adjustment Workform, MPDC – Main utilized combined calendar year billing determinants for all MPDC service areas. These billing determinants correspond to the costs as incurred for all MPDC service areas for this time period, and therefore the disbursement of the 2009 Group 1 Deferrals. Accordingly, MPDC – Main believes that the data included in the application is appropriate because it results in billing determinants that are consistent with the costs incurred.

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Below is Sheet 5 of the Smart Meter Rate Calculation Workform:

<b>Sheet 5. PILs</b>							
<b>PILs Calculation</b>							
	2006	2007	2008	2009	2010	2011	Later
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecasted	Forecasted	Forecasted
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ 1,588.02	\$ 4,498.45	\$ 7,730.29	\$ -	\$ -
Amortization	\$ -	\$ -	\$ 1,972.03	\$ 7,397.03	\$ 15,323.20	\$ -	\$ -
CCA - Smart Meters	\$ -	\$ -	\$ 2,366.44	\$ 8,496.38	\$ 16,742.15	\$ 22,414.37	\$ -
CCA - Computers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ 317.90	\$ 1,230.87	\$ 1,943.01	\$ -
Change in taxable income	\$ -	\$ -	\$ 1,193.61	\$ 3,081.19	\$ 5,080.48	\$ 24,357.37	\$ -
Tax Rate (3. LDC Assumptions and Data)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ 399.86	\$ 1,016.79	\$ 1,574.95	\$ 6,880.96	\$ -

- a) Please explain why there is no input under “2011 Forecasted” Net Income (Cell H8) and Amortization (Cell H9). If this is an omission, please re-file Sheet 5 with the correct data and Board staff will make the necessary changes to the model.

**Response:**

MPDC has reviewed the 2011 IRM Smart Meter Rate Calculation Workform as filed and confirms that the 2011 Forecasted Net Income and Amortization values were entered correctly. However, the IRM2 Model did not carry forward these numbers to Sheet 5 in the Workform.

MPDC requests that the Board to update cell references in cells H8 and H9 as follows:

Reference	Original Formula	Updated Formula	Correct Value
Net Income	= '4. Smart Meter Rev Req'!R49	= '4. Smart Meter Rev Req'!T49	\$11,340.40
Amortization	= '4. Smart Meter Rev Req'!R47	= '4. Smart Meter Rev Req'!T47	\$21,645.35

**VECC**

**Question 1**

**References:** Appendix II, Indeco Report, page 3 and Table 10

- a) When (year and date) did the OPA change its Input assumptions (unit savings and free ridership) for CFLs and SLEDs under the Every Kilowatt Counts Campaigns?
- b) Provide a copy of the SeeLine EKC calculators before and after the change.
- c) Confirm /Show how the EKC assumptions used in this claim compare to post (2006?) OPA EKC calculator change and to the latest OPA Mass Market Measures and Input Assumptions.
- d) What is meant by OPA 2010? Does this refer to the OPA LDC Program evaluations? If so, provide the OPA Letter with the date of this evaluation and the detailed extract(s) for Middlesex OPA Residential Programs.
- e) What persistence factors have been applied to the 2006 EKC programs and Measures, specifically CFLs and SLEDs?

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**Response:**

- a) Attachment 2 lists the CFLs and SLEDs found in each of the four EKC campaigns (2006, 2007, 2008 and 2009). It is clear from the table that the OPA changed input assumptions for CFLs under the EKC campaigns between the 2006, 2007 and 2008 campaigns. SLED input assumptions changed between 2006 and 2007. SLEDs were not offered in 2008 or 2009 as part of the EKC campaign.
- b) MPDC – Main is unable to locate these SeeLine EKC calculators and confirms that they were not used in the LRAM application or by IndEco in preparing its third-party report. Rather, MPDC – Main utilized the OPA’s reported final results.  
  
MPDC – Main submits that its approach is the most current and appropriate. The approach is consistent with the Board’s LRAM guidance, which on page 28 of the CDM Guidelines states: "The Board would consider an evaluation by the OPA or a third party designated by the OPA to be sufficient."
- c) The EKC assumptions used in the MPDC – Main LRAM claim are those provided by the OPA in the '2006-8 Final + 2009 Preliminary OPA CDM Results Middlesex Power Distribution Corp'. The assumptions for CFLs and SLEDs are the same as those listed in Attachment 2. A comparison to the latest OPA Mass Market Measures and Input Assumptions, released by the OPA on January

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1, 2010 for CFLs and SLEDs, is provided in Attachment 2. Free-rider rates are not provided by the OPA 2010 Measures and Assumptions list.

- d) "OPA 2010" refers to the Excel spreadsheet containing the final 2006-2008 OPA Conservation Program results and the preliminary 2009 OPA Conservation Program results for MPDC – Main. This spreadsheet was provided by the OPA to MPDC – Main in an email from OPA staff dated August 13, 2010.
- e) Persistence factors of 100% were applied to the 2006 EKC programs and measures, including CFLs and SLEDs. This is consistent with the program-specific persistence factors contained in the '2006-8 Final + 2009 Preliminary OPA CDM Results Middlesex Power Distribution Corp' provided by OPA staff on August 13, 2010.

**VECC**

**Question 2**

**References:** Appendix II, Indeco Report, page 4 and Appendix A

**Preamble:** Indeco finds that appropriate measure specifications were used to calculate program energy savings.

- a) Confirm the Input Assumptions used by IndEco for the OPA CDM programs
    - Residential EKC 2006 and 2007-- list of measures, # units and unit kWh savings, lifetime and free ridership for each of 2006-2010.
  - b) For each measure provide the comparable values from the OPA 2010 Mass Market Measures and Assumptions List.
- 

**Response:**

- a) Attachment 3 contains the requested input assumptions used by IndEco for the 2006 and 2007 Residential EKC programs. The same input assumptions were used for these measures to calculate the LRAM claims for each of 2006 to 2010, provided that the measure was still within its lifetime. Only energy savings between 2006 and 2010 that were not beyond the respective measure lives of each measure were considered in the calculation of the LRAM claim.
- b) Attachment 4 shows a list of input values for the above measures taken from the "OPA 2010 Mass Market Measures and Assumptions List". The 2010 OPA Measures and Assumption list does not provide free-rider rates. MPDC – Main considers the values from the OPA evaluation of the MPDC – Main EKC program to be most meaningful and appropriate.

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## Attachment 1

Table 1: Reconciliation of 2009 Billing Determinations for MPDC in KWh										
Line No.	Description	Main	Dutton			Newbury			Combined CY 2009 Total (2)	2009 RRR Filing
		Jan - Dec (1)	Jan - Apr	May - Dec	Total 2009 (1) (2)	Jan - Apr	May - Dec	Total 2009 (1) (2)		
	(A)	(B)	(C)	(D)	(E) = (C) + (D)	(F)	(G)	(H) = (F) + (G)	(I) = (B) + (E) + (H)	(J) = (B) + (D) + (G)
1	Residential	56,192,789	2,049,043	2,376,521	4,425,564	576,714	889,882	1,466,596	62,084,949	59,459,192
2	General Service <50	18,279,724	1,486,483	1,906,255	3,392,738	193,591	301,730	495,321	22,167,783	20,487,709
3	General Service >50	84,572,093	0	0	0	507,320	1,078,160	1,585,480	86,157,573	85,650,253
4	Large User	17,181,839	0	0	0	0	0	0	17,181,839	17,181,839
5	Unmetered Scattered Load	304,425	0	0	0	0	0	0	304,425	304,425
6	Sentinel Lights	42,498	367	514	881	0	0	0	43,379	43,012
7	Street Lighting Connections	1,464,757	55,042	61,490	116,532	26,190	35,184	61,374	1,642,663	1,561,431
8	TOTAL	178,038,125	3,590,935	4,344,780	7,935,715	1,303,815	2,304,956	3,608,771	189,582,611	184,687,861

(3)

(3)

Table 2: Reconciliation of 2009 Billing Determinations for MPDC in KW										
Line No.	Description	Main	Dutton			Newbury			Combined CY 2009 Total (2)	2009 RRR Filing
		Jan - Dec	Jan - Apr	May - Dec	Total 2009	Jan - Apr	May - Dec	Total 2009		
	(A)	(B)	(C)	(D)	(E) = (C) + (D)	(F)	(G)	(H) = (F) + (G)	(I) = (B) + (E) + (H)	(J) = (B) + (D) + (G)
1	Residential	0	0	0	0	0	0	0	0	0
2	General Service <50	0	0	0	0	0	0	0	0	0
3	General Service >50	231,274	0	0	0	1,243	2,594	3,837	235,111	233,868
4	Large User	38,952	0	0	0	0	0	0	38,952	38,952
5	Unmetered Scattered Load	0	0	0	0	0	0	0	0	0
6	Sentinel Lights	119	0	0	0	0	0	0	119	119
7	Street Lighting Connections	4,657	114	229	343	54	109	163	5,163	4,994
8	TOTAL	275,002	114	229	343	1,297	2,703	4,000	279,345	277,933

### Notes:

- (1) Source of billing determinants for RTSR for respective 2011 IRM2 rate filing.
- (2) Source of billing determinants for Group 1 Deferrals.
- (3) In preparation of the 2009 RRR filing, a reclass adjustment (6,392 KWh) was made between General Service <50 and Unmetered Scattered Load since the Unmetered Scattered Load class does not exist in MPDC-Dutton/Dutton Hydro.

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**Attachment 2**

Measure type	Program year	Energy Efficient Measure	Measure life	Gross annual energy savings (kWh/a)	Free-ridership
CFLs	2006 Fall	Energy Star® CFL	4	104.4	10%
CFLs	2006 Spring	Energy Star® CFL	4	104.4	10%
CFLs	2007	15 W CFL	8	43	22%
CFLs	2007	20 W+ CFLs	8	62.1	22%
CFLs	2007	Project Porchlight CFLs	8	43	24%
CFLs	2008	Energy Star® Qualified CFLs	8	53	48%
CFLs	2009	Standard CFL (single pack)	8	53	24%
CFLs	2009	Standard CFL (multi (6) pack)	8	258	24%
Flood CFLs	2008	Energy Star® Qualified Compact Fluorescent Floods (indoor & outdoor)	7	87.6	63%
Other CFLs	2008	Energy Star® Decorative CFLs	4	30.4	61%
Other CFLs	2008	Energy Star® Dimmable CFLs	6	97.8	62%
Other CFLs	2009	Energy Star® Specialty CFLs	6	63	24%
SLEDs	2006	SLEDs	30	31	10%
SLEDs	2007	SLEDs	5	14	51%

**Middlesex Power Distribution Corporation - Main**

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**Attachment 3**

Program	Measure	Assumptions used in LRAM claim (from final 2006-2008 and preliminary 2009 OPA Program results provided by the OPA August 13 2010)			
		# of units	Measure life	Free-rider rate	Gross annual energy savings (kWh/a)
2006 EKC Spring	Energy Star® CFL	2,048	4	10%	104
2006 EKC Spring	Electric Timers	57	20	10%	183
2006 EKC Spring	PStats	25	15	10%	216
2006 EKC Spring	Energy Star® Ceiling Fans	19	20	10%	141
2006 EKC Fall	Energy Star® CFL	3,036	4	10%	104
2006 EKC Fall	SLEDs	731	30	10%	31
2006 EKC Fall	PStats	48	18	10%	522
2006 EKC Fall	Dimmers	38	10	10%	139
2006 EKC Fall	Indoor Motion Sensors	14	20	10%	209
2006 EKC Fall	Baseboard Pstats	3	18	10%	1466
2007 EKC	15 W CFL	3,351	8	22%	43
2007 EKC	20+ W CFL	546	8	22%	62
2007 EKC	Energy Star® Light Fixture	13	16	45%	123
2007 EKC	T8 Fluorescent Tube	26	18	23%	37
2007 EKC	SLEDs	888	5	51%	14
2007 EKC	Project Porchlight CFL	705	8	24%	43
2007 EKC	Solar Light	430	5	87%	5
2007 EKC	Energy Star® Ceiling Fan	27	10	45%	90
2007 EKC	Furnace Filter	109	1	45%	38
2007 EKC	Power Bar with Timer	12	10	23%	72
2007 EKC	Lighting Control Device	138	10	45%	72
2007 EKC	Outdoor Motion Sensor	43	10	45%	160
2007 EKC	Dimmer Switch	27	10	45%	24
2007 EKC	PStats	26	15	45%	75

**Middlesex Power Distribution Corporation - Main**

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Program	Measure	# of units	Values from the 2010 Measures and Assumptions list		
			Measure life	Free-rider rate	Gross annual energy savings (kWh/a)
2006 EKC	Energy Star® CFL	2,048	8	NA	44
2006 EKC	Electric Timers	57	10	NA	144
2006 EKC	Pstats	25	11	NA	203
2006 EKC	Energy Star® Ceiling Fans	19	10	NA	123
2006 EKC Fall	Energy Star® CFL	3,036	8	NA	44
2006 EKC Fall	SLEDs	731	5	NA	14
2006 EKC Fall	Pstats	48	11	NA	2151
2006 EKC Fall	Dimmers	38	10	NA	24
2006 EKC Fall	Indoor Motion Sensors	14	10	NA	64
2006 EKC Fall	Baseboard Pstats	3	11	NA	63
2007 EKC	15 W CFL	3,351	8	NA	44
2007 EKC	20+ W CFL	546	8	NA	63
2007 EKC	Energy Star® Light Fixture	13	16	NA	166
2007 EKC	T8 Fluorescent Tube	26	18	NA	28
2007 EKC	SLEDs	888	5	NA	14
2007 EKC	Project Porchlight CFL	705	8	NA	44
2007 EKC	Solar Light	430	5	NA	5
2007 EKC	Energy Star® Ceiling Fan	27	10	NA	123
2007 EKC	Furnace Filter	109	1	NA	34
2007 EKC	Power Bar with Timer	12	10	NA	53
2007 EKC	Lighting Control Device	138	10	NA	107
2007 EKC	Outdoor Motion Sensor	43	10	NA	159
2007 EKC	Dimmer Switch	27	10	NA	24
2007 EKC	Pstat	26	11	NA	63