

**REMOTE READING PROJECT – PHASE 1  
TRACKING OF DECISION D-2012-127**

**QUARTERLY TRACKING ON SEPTEMBER 30, 2013**

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**TRACKING OF REMOTE READING PROJECT – PHASE 1  
SEPTEMBER 30, 2013**



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**Glossary**

CES	Conditions of Electricity Service
MOC	Measurement Operations Center
NCM	Non-Communicating Meter
NGM	New Generation Meter
AMI	Advanced Measurement Infrastructure
k	thousand(s)
M\$	million(s) of dollars
MDMS	Measurement Data Management System
MRC	County regional town
Opt-out option	Electricity distribution tariffs and conditions relating to an option for installing a meter that does not emit radio frequencies
LAD project <i>et seq.</i>	Remote reading project and following
vs.	versus

**Note: The totals in the document's tables  
are calculated from un-rounded data.**

In its decision DE-2012-127<sup>1</sup> on the authorization request for performing phase 1 of the LAD project, the Energy Authority (the “Authority”) asked Hydro-Québec Distribution (the “Distributor”) to file quarterly a tracking of the progress of the costs and project schedule. This is how the Authority’s request is formulated:

“[532] Consequently, the Authority asked the Distributor to send it the following information, with the periodicity called for below:

- A year from now, an assessment of the communication plan intended to respond to its clients’ questions and concerns, data on the number of clients who exercised the Opt-out Option and their impact on the deployment and the Project costs;
- On a quarterly basis, attract new report on the progress of the Project’s costs and schedule, including the following information:
  - A plan for NGM installation by quarter for all of phase 1; [Section 2]
  - The number of NGM actually installed by quarter; [Section 2]
  - The number of clients who make use of the Opt-out Option by quarter; [Section 5]
  - The expected costs of phase 1 of the Project by quarter; [Section 3]
  - The actual costs of phase 1 by quarter; [Section 3]
  - The explanation for cost and schedule deviations and the new forecasts, as applicable; [Section 2 and 3]
  - A status of the materialization of the stated efficiency savings; [Section 4]
  - The number of client complaints received per quarter, organized by the type of reasons. [Section 6]

...”

The Distributor is filing the quarterly tracking for September 30, 2013 of the progress of the project costs and schedule including the explanations for deviations, as applicable. As indicated in the communication plan assessment filed with the Authority October 7, 2013, this tracking includes in Section 5 the results of the analysis of the impact on the LAD project of the number of clients who exercised the opt-out option.

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<sup>1</sup> D-2012-127, final decision concerning the *Request for Authorization of the Remote Reading Project– Phase 1*, October 5, 2012.

## **1. SETTING THE CONTEXT**

The LAD project phase 1 deployment is continuing, within the forecast financial envelope, and in keeping with the Distributor's high expectations for both the technology and the tempo of its execution. The Distributor remains confident of achieving at the end of phase 1 the objectives which it set for new generation meter deployment.

The Distributor indicates that in the case R-3770-2011<sup>2</sup> it was planning the beginning of bulk deployment in the second quarter of 2012; the annual costs and savings stated in the authorization request reflected the deployment tempo planned at that time. In October 2012, the Authority approved the electricity distribution tariffs and conditions for an option for installing a meter that does not emit radio frequencies ("opt-out option")<sup>3</sup>. Because of the coupled effect of the date of entry into force of the opt-out option set for December 1, 2012<sup>4</sup> and the seasonal holiday period, the first installation notice letters, with information on the meter replacement, were sent to the client's January 7, 2013.

The forecasts stated in the 2013-2014 tariff case (case R-3814-2012) principally follow from the delay in starting bulk deployment and the revision of the LAD project phase 1 deployment schedule<sup>5</sup>.

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<sup>2</sup> Case R-3770-2011, *Request for Authorization of the Remote Reading Project – Phase 1*.

<sup>3</sup> D-2012-128, final decision on the *Request for Setting Electricity Distribution Tariffs and Conditions for an Option for Installing a Meter that Does Not Emit Radio Frequencies*, October 5 2012.

<sup>4</sup> D-2012-145, final decision on *Conditions for Electric Service and Distributor's Tariffs and Conditions Applicable Starting December 1, 2012*, November 2, 2012.

<sup>5</sup> See the responses to question 16.2 and 42.3 from the Authority's request for information number 1 on document HQD-13, document 1 (B-0082) of the case R-3814-2012, *Request to Establish Electricity Tariffs for the Tariff Year 2013-2014*, which reports on a start of bulk deployment in January 2013.



**2. NEW GENERATION METERS INSTALLED IN PHASE 1**

In the third quarter, the Distributor continued installing telecommunications equipment and new generation meters. As forecast in the 2013-2014 tariff case, the installation of 1.7 million meters in the greater Montréal region<sup>6</sup> will be finished at the end of the second quarter of 2014.

Table 1 provides the number of new generation meters installed quarterly by September 30, 2013 and also the forecast for the coming meter installations, relying on the information already provided in the 2013-2014 tariff case. The number of new generation meters installed in red by the MOC is 634,000<sup>7</sup> on September 30, 2013. Number of meters installed, including non-communicating meters, total 636,000.

**TABLE 1: NUMBER OF PLANNED AND INSTALLED NEW GENERATION METERS BY QUARTER FOR PHASE 1 (IN THOUSANDS)**

	Preparatory work actual	2013				2014		Total planned
		Q1 actual	Q2 actual	Q3 actual	Q4 planned	Q1 planned	Q2 planned	
R-3814-2012 <sup>1</sup>	20	68	262	334	334	334	337	1,690
New forecast	20	20	208	386	385	334	337	1,690
Deviation R-3814-2012 versus New Forecast	0	(48)	(55)	52	51	0	0	0

Note 1: Table R-42.4 from document HQD-13, document 1 (B-0082) from case R-3814-2012 for data from Q1 to Q4 2013; Table 1 from Tracking the Remote Reading Project – Phase 1, period from January 1 to June 30, 2014 for the data for Q1 and Q2 2014.

As forecast, the tempo of installations has continued its progression since the last update. Thus, the average for the last two months of the third quarter exceeded the 30,000 installations per week cap. The bar of 7000 meters installed in a single day was crossed several times. The Distributor has therefore considerably

<sup>6</sup> See page 18 from document HQD-3, document one (B-0026) from the case R-3770-2011 where the area targeted by the phase 1 deployment is illustrated.

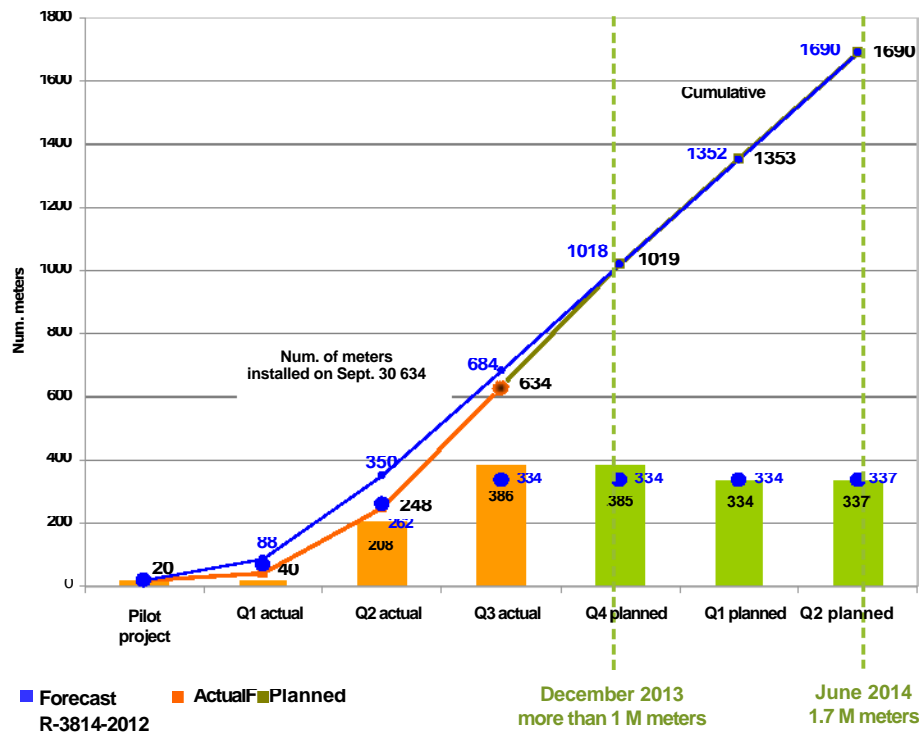
<sup>7</sup> This number includes meters installed in connection with preparatory work during the pilot project for the city of Boucherville and the MRC of Memphrémagog and also the Villeray neighborhood in Montréal.

exceeded the forecast average installation tempo of 5000 meters per day<sup>8</sup> and aims to maintain this tempo during the third quarter.

That Distributor indicates that the deviation observed between the number of meters installed by June 30, 2013 and the number expected for the same period is explained by the offset from starting installations on February 7 instead of January 1, 2013. In the third quarter, the Distributor managed to install 52,000 more meters than what was planned in 2013-2014 tariff case.

Thus, as forecast June 30, 2013<sup>9</sup>, half of the unfavorable deviation observed June 30 was filled by September 30, 2013. The Distributor is confident of reaching its annual install meters objective by the end of the fourth quarter, even though the objective for the number of installed meters for phase 1 is 1.7 million as shown in Figure 1.

**FIGURE 1: NUMBER OF PLANNED AND INSTALLED NEW GENERATION METERS BY QUARTER FOR PHASE 1 (IN THOUSANDS)**



<sup>8</sup> In particular see the stenographic notes from the hearing May 22, 2012, volume 18 (A-0152) from case R-3770-2011, pages 84 to 94.

<sup>9</sup> See Table 1 from the Tracking of Remote Reading Project - Phase 1, Period from January 1 to June 30, 2013.

### 3. PLANNED AND ACTUAL COSTS FOR PHASE 1

#### 3.1. Planned Total Phase 1 Costs

Table 2 gives the actual cost to September 30, 2013 and those forecast until the end of phase 1, and then compares those to the forecast costs from case R-3770-2011. For purposes of LAD project phase 1 cost analysis, the Distributor presents its data on an annual basis.

By sustaining the current cost management rigor, the Distributor currently anticipates that the phase 1 costs will be below the \$440.5 million costs forecasting case R-3770-2011. While remaining prudent, in the face of the work to be done from now to the end of phase 1, the Distributor thinks that favorable deviations totaling \$25.6 million will be realized. With these favorable deviations it will be possible to balance the cost for maintaining the essential activities arising from the delay in starting the bulk deployment (\$8.7 million) and the increase of financial costs attributed to the project (\$4.4 million). The Distributor therefore expects to achieve a net favorable deviation of \$12.5 million for a new forecast of \$427.9 million.

**TABLE 2: Total Planned Costs for Phase 1 of the LAD Project (in M\$)**

	Preparatory work <sup>1</sup>	2012 actual	2013 planned	2014 et seq. planned	Total planned	R-3770-2011 <sup>1</sup>	Deviation Forecast/R-3770-2011
<b>Investments</b>	<b>38.8</b>	<b>41.2</b>	<b>172.7</b>	<b>143.0</b>	<b>395.8</b>	<b>396.3</b>	<b>(0.5)</b>
Information technology infrastructure	20.3	13.7	9.3	25.3	68.6	72.1	(3.5)
Project office	7.1	3.8	-	-	10.9	10.2	0.7
<b>Subtotal</b>	<b>11.4</b>	<b>23.7</b>	<b>163.4</b>	<b>117.7</b>	<b>316.3</b>	<b>314.0</b>	<b>2.3</b>
Purchasing and installing meters	4.4	3.2	132.4	101.6	241.8	250.8	(9.1)
Telecommunications equipment	3.0	11.3	20.3	10.4	45.1	46.2	(1.1)
Project office	-	6.1	7.5	4.4	18.0	8.3	9.6
Capitalized borrowing costs	-	3.0	3.1	0.6	6.8	2.3	4.4
Other	4.0	0.1	0.0	0.6	4.7	6.3	(1.6)
<b>Operating charges</b>	<b>3.9</b>	<b>5.1</b>	<b>15.7</b>	<b>7.4</b>	<b>32.1</b>	<b>44.2</b>	<b>(12.0)</b>
Relocalization of resources	-	-	-	-	-	7.1	(7.1)
Information Technologies	-	4.5	7.4	3.1	15.0	19.4	(4.3)
Telecommunications	1.8	0.2	2.3	2.4	6.6	2.9	3.7
Various charges	2.1	0.4	6.0	1.9	10.5	14.8	(4.4)
<b>Total</b>	<b>42.7</b>	<b>46.4</b>	<b>188.4</b>	<b>150.4</b>	<b>427.9</b>	<b>440.5</b>	<b>(12.5)</b>

Note 1: The results of preparatory work (Table R-10.1-A from document HQD-13, document 1.1 (B-0129) from case R-3814-2012) and the data from the case R-3770-2011 (Table 11 from the document HQD-1, document 1 (B-0006) from case R-3770-2011) were reclassified for purposes of comparison with the actual year 2012 and the forecasts for 2013 and following years.

As it involves the favorable deviations totaling \$25.6 million, the following are the main items involving investments:

- \$9.1 million attributable to the unit cost for the purchase of meters and their installation that was lower than initially forecast in case R-3770-2011, particularly when the installation is done by the Distributor's installers<sup>10</sup>. This deviation also includes a downward revision of the forecast number of required actions by a master electrician in cases where the installers observe that the base is damaged and presents a safety problem for the electric installation.
- \$4.6 million released by lower than forecast costs for deploying the information technology infrastructure (\$3.5 million) and the telecommunications equipment (\$1.1 million) necessary for implementing phase 1.

The following are the main favorable items involving operating charges:

- \$7.1 million involving relocalization of meter reading resources because permanent employees are progressively reassigned to reading routes not targeted by deployment.
- \$4.4 million in training and communication activities (under the heading "other charges") by the use of training tools developed for base activities in the downward revision of the number of additional resources required in the communication activities.

As for the unfavorable deviations totaling \$13.1 million, the following are the main items involving investments:

- \$3.7 million coming in part from essential maintenance activities during the transition period before the end of the pilot projects and the beginning of bulk deployment and also from the revision of the deployment schedule.
- \$4.4 million of borrowing costs to be capitalized.

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<sup>10</sup> The LAD project costs in case R-3770-2011 included non-negotiated prices for new generation meters from the supplier Elster and the estimated services rate from the service provider.

Furthermore, involving operating charges, the lower than forecast costs for operating the information technology infrastructure (\$4.3 million) offset a cost increase for telecommunications activities (\$3.7 million), due in particular to the extension of the period of phase 1 work.

The Distributor indicates that the cost items that made it possible to generate favorable deviations are specific to the LAD project phase 1 implementation and can't be repeated in phases 2 and 3. As an example, during phases 2 and 3 of the project, the proportion of permanent meter reading employees to be relocated will necessarily be larger than for phase 1 and will consequently generate relocalization costs. Furthermore, the larger number of towns and the more vast area of the territories to be traversed in phases 2 and 3 will undoubtedly lead to costs consistent with those planned in case R-3770-2011, and therefore higher than the costs observed in phase 1, for the installations done by the Distributor's employees and for the communications activities.

### 3.2. Actual and Planned Costs for 2013

In table 3, the Distributor presents the actual and forecast costs for 2013 by quarter and compares them with the forecasts of the costs provided in connection with the 2013-2014 tariff case (case R-3814-2012).

The Distributor forecasts \$188.4 million in total costs, of which \$172.7 million is for investments and \$15.7 million for operating charges. The current forecast is within the \$202.9 million amount presented in the 2013-2014 tariff case.

**TABLE 3: COSTS FOR PHASE 1 OF THE LAD PROJECT – 2013 (IN M\$)**

	2013				2013 Cumulative		
	Q1 actual	Q2 actual	Q3 actual	Q4 planned	Total actual and forecast	R-3814-2012 <sup>1</sup>	Deviation actual and forecast/R-3814-2012
<b>Investments</b>	<b>12.4</b>	<b>33.0</b>	<b>66.4</b>	<b>60.9</b>	<b>172.7</b>	<b>182.5</b>	<b>(9.8)</b>
Information technology infrastructure	1.9	1.2	4.6	1.5	9.3	10.7	(1.5)
Project office	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>10.5</b>	<b>31.8</b>	<b>61.8</b>	<b>59.4</b>	<b>163.4</b>	<b>171.7</b>	<b>(8.3)</b>
Purchasing and installing meters	3.1	26.0	52.6	50.7	132.4	142.0	(9.5)
Telecommunications equipment	4.5	4.0	5.8	6.1	20.3	20.6	(0.2)
Project office	1.8	1.0	2.5	2.1	7.5	6.2	1.3
Capitalized borrowing costs	1.1	0.8	0.8	0.5	3.1	1.4	1.8
Other	0.0	-	-	-	0.0	1.6	(1.6)
<b>Operating charges</b>	<b>2.7</b>	<b>3.4</b>	<b>3.9</b>	<b>5.6</b>	<b>15.7</b>	<b>20.5</b>	<b>(4.8)</b>
Relocalization of resources	-	-	-	-	-	-	-
Information technology	2.1	2.1	1.3	1.9	7.4	7.8	(0.4)
Telecommunications	0.6	0.6	0.6	0.6	2.3	1.8	0.4
Various charges	0.0	0.7	2.1	3.2	6.0	10.8	(4.8)
<b>Total</b>	<b>15.1</b>	<b>36.5</b>	<b>70.3</b>	<b>66.5</b>	<b>188.4</b>	<b>202.9</b>	<b>(14.5)</b>

Note 1: Data reclassified from table R-10.1-A from document HQD-13, document 1.2 (B-0129) of case R-3814-2012.

The following is the main favorable item involving investments:

- \$9.5 million attributable to the lower than forecast unit cost for purchasing and installing meters, and also the downward revision of the forecast number of visits required by a master electrician (see Section 3.1).

The following is the main favorable item involving operating charges:

- \$4.8 million in training and communication activities (under the “other charges” heading; see Section 3.1).

#### **4. EFFICIENCY SAVINGS**

In the LAD project phase 1 authorization request, the Distributor estimated that at the human resources level 726 positions would be affected by the LAD project for the entire deployment<sup>11</sup>.

In anticipation of starting deployment and considering the fact that the situation was temporary, the Distributor starting in 2012 prudently managed the staff in the reading and collection process, for example by not filling some positions which became vacant. The efficiency savings, connected with eliminating reading routes, showed up gradually and represents 63 positions for the reading process on September 30, 2013. As for the savings related to service cut off and restoration activity associated with the collection process, they represent 12 positions on September 30, 2013. The savings related to the client service representatives will be materialized later in step with the installation of new generation meters that will allow reducing the number of bills produced on the basis of an estimate.

Furthermore, on September 30, 2013 the distributor also reported 68 demonstrated cases of bringing an electrical installation into compliance following detection of anomalies in the client's electrical installation which could affect the electricity measurement. It is currently analyzing 157 potential additional cases of bringing into compliance detected by September 30, 2013.

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<sup>11</sup> Section 5.1 (page 31) of document HQD-1, document 1 (B-0006) from case R-3770-2011.

**5. CLIENTS MAKING USE OF THE OPT-OUT OPTION**

On September 30, 2013, 1961 clients made use of the opt-out option has had a non-communicating meter installed. This represents about 0.3% of the installed meters (new generation meters and non-communicating meters); this rate is below the percentage forecast (1%) in connection with the case R-3770-2011<sup>12</sup>.

The Distributor indicates that this rate would also be 0.3% if it took the ratio between the number of client requests to subscribe to the opt-out option (2980 requests by September 30) and the number of new meter installation notice letters (932,000 notice letters by September 30). The Distributor however considers that the number of non-communicating meters installed represents the most reliable data because it sometimes happens that clients change their mind and decide to opt for a new generation meter after having requested to subscribe to the opt-out option. By September 30, 222 clients had changed their mind and opted for a new generation meter. Thus, the dropout rate for the opt-out option represents nearly 10% of the clients who had completed the process, either by installation of a non-communicating meter (1961), or by changing their mind and instead opting for the installation of a new generation meter (222).

Table 4 shows the number of non-communicating meters installed by quarter to September 30, 2013.

**TABLE 4: NUMBER OF NON-COMMUNICATING METERS INSTALLED**

	2013			
	Q1	Q2	Q3	Total
NCM installed	72	330	1,559	1,961

The Distributor indicated that when it plans to replace the meter in a given region by new generation meters, the clients who request a non-communicating meter within 30 days of the installation notice letter have a right to an installation

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<sup>12</sup> Document HQD-1, document 6 (B-0094) from case R-3770-2011.



credit for an amount set in the *Distributor's Tariffs and Conditions*. Thus, the 30 day interval granted the clients under the CES only serves to determine whether the clients have a right to an installation credit, since the choice can be exercised by the client at any time.

### **5.1. Impact of the Number of Clients Who Exercised the Option to Opt-out from the LAD Project**

In the decision de-2012-128 (paragraph 92 to 95), the Authority indicated “that [t]he [applicant-payer] principle applies to the exercise of the opt-out [o]ption, because it involves a personal choice by a client with which must be combined the obligation to cover its costs.”

The initial installation costs, the monthly manual reading costs and the application management costs associated with the opt-out option are billed according to the tariffs in effect in Article 12.5 of the *Distributor's Tariffs and Conditions* and according to the conditions established in Article 10.4 of the CES.

The Distributor clarifies that it attributes the non-communicating meter acquisition cost to the LAD project. However, attributing these costs to the project in no way creates a deviation because the Distributor had forecast the replacement of all meters and the cost of the non-communicating meters substitutes for that of the new generation meters. As for the reinstallation costs of new generation meters for clients who would like to go back to the base offer, the Distributor thinks that the costs are marginal and should remain too low to have a real impact on the discounted savings from the LAD project.

Additionally, the AMI supplier, Landis+Gyr, estimated that at a refusal level under 2% distributed over the entire Québec territory the impact on the network topology would be minimal and consequently the addition of equipment would not be required.

In light of the current number of subscriptions, the Distributor thinks that the discounted savings from the LAD project will remain unchanged and confirms that there is no impact on the project costs.

**6. CLIENT COMPLAINTS RECEIVED**

At the beginning of the discussion, the Distributor indicates that the complaints concern the dissatisfaction experienced by a client with respect to services rendered by the distributor following a first contact of the client with client services. Although other types of requests are not recorded in the register or tracking system, the Distributor indicates that it contacts each client by telephone or writing in order to respond to any question on their part and provide the requested information. These other requests are therefore not part of the complaint tracking.

For the quarter ending September 30, 2013, the Distributor and the service provider received a total of 120 complaints, so the complaints relative to the number of meters installed for the same period represents 0.03%. The complaint rate therefore remains stable. Table 5 reports, by quarter, complaints received according to the reason types; the reasons are defined in Attachment A.

**TABLE 5: NUMBER OF CLIENT COMPLAINTS BY REASON TYPE**

Reason	2013			
	Q1	Q2	Q3	Total
Service conditions		12	6	18
Billing	1	3	6	10
Interference		8	27	35
Concerns/Refusal	1	4	10	15
Service performance	1	43	71	115
<b>Total</b>	<b>3</b>	<b>70</b>	<b>120</b>	<b>193</b>

Note: The number of complaints for the second quarter was revised following the discovery of a data compilation error. Additionally, some complaints from the second quarter were reclassified to another reason, following their handling, in order to better reflect the actual subject of the associated complaints.

The Distributor wants to emphasize that management of complaints is part of a global process whose objective is to maximize the satisfaction of each client. This process incorporates all the elements necessary so that the Distributor can reduce the number of complaints to a minimum. The Distributor brings to the Authority’s attention some of the components of this overall process:

- A communication plan that aims to respond to the individual concerns of each client (see the assessment of the communication plan filed October 7, 2013);
- Surveys conducted by an outside firm covering the satisfaction of clients with new generation meter installation services;
- The application of the quality assurance program relating to the new generation meter installation process;
- A service provider compensation clause incorporating the number of complaints received;
- A rigorous complaint tracking and analysis process involving, when the situation calls for it, the participants at the origin of the complaint, and feedback to them.

Additionally, the results the client satisfaction survey demonstrate a satisfaction rate of 8.8 out of 10 for the meter installation on September 30, 2013.



**ATTACHMENT A: DEFINITION OF COMPLAINT TYPES**

*Conditions of Service*

The “conditions of service” reason concerns complaints related to the application of a condition of electricity service. For example, complaints related to the opt-out option methods (e.g. 30 days written notice, initial installation fees or required monthly fees, eligibility criteria and others) are entered under this reason.

*Billing*

The “billing” reason concerns complaints related to the first bill following installation of the new meter and the subsequent bills when the client can compare to equivalent periods following installation. There are for example disputes following the increase of the bill, disputes of the reading of the old meter at the time of its last reading or the new meter during replacement.

*Interference*

The “interference” reason covers client complaints alleging that the equipment they use is affected by waves emitted by the meters.

*Concerns/Refusal*

The “concerns/refusal” reason covers cases where the client refuses, by means of the complaint, the installation of a new generation meter or emphasizes their concerns about the project.

*Service Performance*

The “service performance” reason covers complaints dealing with the service received in connection with meter installation. Among the subjects which could be the subject of the complaint, are among others making or keeping an appointment, response time or performance of the installation, the explanations provided and the professionalism of the Distributor’s or service provider’s employees.