HYDRO-QUÉBEC DISTRIBUTION'S RESPONSES
TO COMMITMENT NUMBERS 1 THROUGH 18

#### Commitment no. 1:

Please provide the 2010 Chartwell survey mentioned as a reference on page 12 of item B-006-HQD-1, document 1 (requested by CUPE-FTQ).

### Response to commitment no. 1:

The Distributor is providing the survey in an envelope marked confidential.

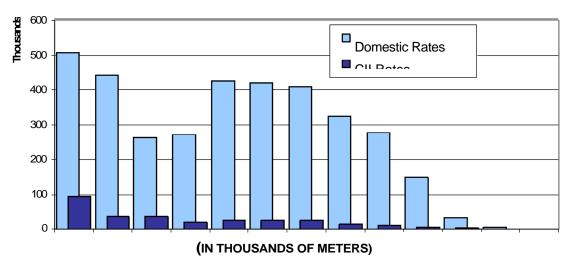
#### Commitment no. 2:

Verify whether Table R-1.3 of item B-016-HQD-2, document 1 (breakdown of the number of meters by type and age segment) can also be presented by meter category (residential, commercial, institutional and industrial) and, if applicable, provide this breakdown (requested by CUPE-FTQ).

#### Response to commitment no. 2:

The Distributor cannot provide a breakdown of the meters by client category. However, the Distributor is able to distinguish the meters associated with domestic rates from meters associated with non-domestic rates (CII).

FIGURE E-2: BREAKDOWN OF ALL METERS BY DOMESTIC AND NON-DOMESTIC RATES



0-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60 and + Age (years)

#### Commitment no. 3:

Verify whether the information concerning the protocol on the protection of personal data (e.g. data retention period, level of data detail and form of the data) can be disseminated and, if applicable, provide it (requested by SÉ-AQLPA).

On what basis or bases is the Distributor convinced that the "Black Cloud" highsecurity protocol is secure (requested by RNCREQ)?

#### Response to commitment no. 3:

The Distributor is required to comply with the Act Respecting Access to Documents Held by Public Bodies and the Protection of Personal Information (Act Respecting Access). The Act Respecting Access includes provisions that protect personal data of a confidential nature, from collection to destruction of the data. The emergence of new technology does not change the methods used to ensure that information is appropriately retained.

The Distributor may only collect personal information on clients that is actually necessary to perform its duties and responsibilities or to implement a program that it manages.

Access to personal information by the Distributor's employees in performing their duties must actually be necessary and not merely useful.

The Distributor must retain the personal information in its possession according to the rules and time frames provided, particularly in the company's guidelines and retention schedule.

Documents that contain confidential information (in particular, personal information) must be destroyed at the end of the time periods provided for in the retention schedule. The disposal of computer equipment is subject to the company's policies.

As for the internal practices implemented to ensure the physical protection of these data, the Distributor cannot disclose them since this puts it at risk of thereby providing information as to its protection methods. However, it can confirm that the methods meet the Distributor's strict criteria with regard to information security and protection.

Additional details on the protection of personal information are available on the Hydro-Québec website:

http://www.hydroquebec.com/publications/fr/loi-acces/protectionrenseignements.html

"Black Cloud" is an unofficial expression that illustrates the difficulty of determining the origin of information and identifying clients based on information that could be intercepted on the AMI network.

- The network is dynamic. The path used by a meter to route its information to the business systems may vary from one time to the next.
- The data that flow through the AMI network are coded using personalized keys and an algorithm.
- The equipment (i.e. meters, routers or collectors) that act as relays do not retain any information on the topological origin of the information.
- It is impossible to trace the meters using the information that flows through the network.

#### Commitment no. 4:

Confirm that the number of meters from region 3 of Table 3 on page 30 of item B-006-HQD-1, document 1 includes meters from autonomous networks (requested by SÉ-AQLPA).

#### Response to commitment no. 4:

The Distributor confirms this.

#### Commitment no. 5:

Provide more information on the benefit for clients, as mentioned on page 20 of the presentation (HQD-3, document 1), of making consumption periods uniform (requested by SÉ-AQLPA).

#### Response to commitment no. 5:

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Making consumption periods uniform will give clients a more stable basis of comparison among different bills since the length of each of the periods will be fixed and equal. See also the response to question 6.9 of the Régie's request for information no. 1, item B-016-HQD-2, document 1.

In addition, the Distributor reiterates that no change to the billing is envisioned or proposed. Accordingly, the parameters used and the billing frequency have not been revised with the execution of the LAD project.

#### Commitment no. 6:

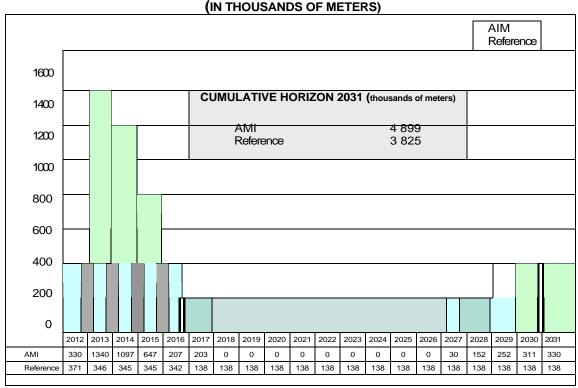
Supplement Table 6: Meter Volumes (Table B1 page 57 of item B-006-HQD-1, document 1) by adding two columns showing the number of meters for investments anticipated at the end of the useful lifespan of the meters in the AMI scenario (starting from 2017) and in the reference scenario (requested by UC).

Provide the "Replaced Meters: AMI vs. Reference" table presented in the work session (requested by UC).

#### Response to commitment no. 6:

The "Replaced Meters: AMI vs. Reference" table is reproduced below.

FIGURE E-6: METERS REPLACED IN THE AMI AND REFERENCE SCENARIOS 2012-2031



In total, over the period from 2012 to 2031, for the purposes of economic and financial analysis, nearly 4.9 million meters will be replaced in the AIM scenario. Of this number, 1.1 million meters installed from 2012

Original: 2011-09-21 HQD-3, Document 2 Page 13 of 37 to 2017, will be replaced at the end of their 15-year lifespan, i.e. between 2027 and 2031.

In the reference scenario, out of the 3.8 million meters replaced, no reinvestment was considered over the period from 2027 to 2031. Accordingly, in the reference scenario, a portion of the electronic meters installed from 2012 to 2017 should have been replaced at the end of their 15-year lifespan<sup>1</sup> (reinvestment) in order to make the two scenarios fully comparable.

This conservative approach puts the LAD project economic analysis at a disadvantage by omitting meter reinvestment costs in the reference scenario.

Despite taking reinvestments into account in the AMI scenario alone, the LAD project turns out to be much less costly than the reference scenario by nearly \$300 M in present value, which shows its viability.

Original: 2011-09-21

<sup>&</sup>lt;sup>1</sup> The lifespan of the current electronic meters for residential clients is 15 years (see the response to question 1.1 of the Régie's request for information no. 1, item B-016-HQD-2, document 1).

#### Commitment no. 7:

Examine the possibility of providing the Excel file noted under section B-007 in reference to question 6 of item B-016-HQD-2, document 1 (requested by UC).

#### Response to commitment no. 7:

The Distributor is providing the document in Attachment A.

#### Commitment no. 8:

Review the various written requests from GRAME and provide the information where applicable (requested by GRAME).

## Document Request Hydro Quebec AMI Project

September 14, 2011

Please provide a copy of the following documents, translated into English, in connection with the Hydro Quebec AMI project:

- 1. Provide a copy of all utility business cases prepared by Hydro Quebec or its consultant in connection with the AMI System project.
- 2. Provide a copy all Request for Proposal documents used to select AMI, MDM and installation contractor vendors, including Ericsson.
- 3. Provide a copy of the Landis+Gyr proposal to Hydro Quebec, including pricing and related attachments for the both the pilot and full installation. A detailed pricing spreadsheet should be provided with itemized cost categories for all hardware, software, installation services, interface costs and ongoing annual maintenance and support.
- 4. Provide a copy of the final executed contract documents between Hydro Quebec, EnergyICT, Landis+Gyr and Ericsson, including the statement of work, pricing and all other attachments.
- 5. Provide a copy of the Hydro Quebec service area propagation study showing the quantity and locations of all network collectors.
- 6. Provide a map of the entire service area with the pilot area and pilot collectors clearly marked.
- 7. Provide copies of all documentation related to the pilot program deployment strategy, objectives, goals, energy management programs and equipment, costs and expected performance. Please include the number of pilot customers, the number of data collectors installed and the service area covered.
- 8. Provide a high level architectural diagram showing all AMI system components and interfaces. Provide descriptions of the types of interfaces that will be used.
- 9. Provide a detailed listing of all project hardware and software, including third party software, along with its associated software/hardware version, release and service pack.
- 10. Provide a copy of Landis+Gyr's AMI system software and meter roadmap showing all planned upgrades and releases for the next three years. Provide a detailed description of all upgrades and new functionality associated with each release.

- 11. Provide copies of all AMI and MDM project status reports prepared by Hydro Quebec, Landis+Gyr or other project manager over the past 2 years, showing ongoing progress against the plan, number of meters installed, project milestones, open issues and change orders processed.
- 12. Provide a detailed listing of all Landis+Gyr software and meter features and functionality that have been installed to date as part of the pilot program. Describe which features have been implemented for future use in the full system rollout as well as the pilot program.
- 13. Provide copies of all business cases and Requests For Proposal that have been prepared by Hydro Quebec or its consultant and issued to implement distribution automation or substation automation systems.
- 14. Provide all available project status reports that have been prepared over the past 2 years in connection with the installation of distribution automation or substation automation projects.

#### Response to commitment no. 8:

According to the Régie's decision D-2011-145 issued on September 19, 2011, the Distributor understands that GRAME must review the duties assigned to Mr. Finamore in order to comply with the Régie's instructions. The Distributor also understands that the list of requests, drawn up by Mr. Finamore before decision D-2011-145 was issued, must be amended and reduced. Therefore, it is premature to respond to GRAME's requests.

#### Commitment no. 9:

Verify the availability of the information as to the placement (inside or outside) of the public utility company meters mentioned in Attachment A of item B-016-HQD-2, document 1 (requested by ROEÉ).

#### Response to commitment no. 9:

In British Columbia, the proportion of meters located inside buildings is approximately 41% of a total of nearly 1.86 million meters.

The Distributor does not have all of the data for the distributors in Ontario. However, for the distributor Hydro-One, which serves a population outside the major urban areas, approximately 80,000 meters out of 1.2 million are located inside buildings, i.e. a proportion of approximately 6% of the meters.

Approximately 7% of the Pennsylvania Power & Light (PP&L) meters are located inside buildings out of 1.4 million meters.

The Distributor does not have any additional data relating to other distributors.

#### Commitment no. 10:

Verify what content of the calls for proposals relating to the meters and their installation, in particular technical specifications and financial information, can be provided as proof and, where applicable, provide it (requested by RNCREQ and ACEFQ).

#### Response to commitment no. 10:

After verification, the Distributor is of the opinion that communicating and examining proposal-call documents would not be appropriate in the context of this case. Not only are these documents highly technical and quite lengthy, but they would contribute nothing to the review of the Distributor's request pursuant to Article 73 of the Act respecting the Régie de l'énergie (LRÉ).

In contrast to the management of the electricity supply, for which the LRÉ provides for the Régie's approval and monitoring of a tender invitation and contract awarding procedure and the Régie's approval of any electricity supply contract, the examination of a request pursuant to Article 73 of the LRÉ does not provide for such requirements and controls. Rather, the Distributor must provide proof of the information mentioned in the Regulation Respecting the Conditions and Cases Where Authorization Is Required from the Régie de l'énergie. No proof of the content of the calls for proposals is required on this point. Furthermore, this would constitute micromanagement and would run counter to the Régie's objectives with regard to easing regulations.

The Distributor carefully conducted its calls for proposals according to the best practices known in this area of activity. The Distributor is of the opinion that it made every necessary effort to obtain reasonable costs by promoting competition, negotiating with the chosen tenderers and including an equivalent-price provision in its contracts with the suppliers selected following call for proposals no. 2 (see the response to question 1.6 of the Régie's request for information no. 1, item B-016-HQD-2, document 1).

#### Commitment no. 11:

Distinguish between the energy consumption of electronic meters and that of new generation meters (requested by ACEFO).

#### Response to commitment no. 11:

The electronic meters currently used by the Distributor consume between 1 and 1.8 W.

The new generation meters for residential clients that were selected as part of the LAD project consume between 1 and 1.5 W at the most.

#### Commitment no. 12:

Provide a breakdown of the replaced meters by age, distinguishing between meters installed inside and those installed outside, if this information is available (requested by UMQ).

#### Response to commitment no. 12:

The Distributor does not retain information on meter replacements according to whether the meters are located inside or outside buildings. Nevertheless, slightly more than 35% of the total are inside meters, and this proportion is reflected in the replacements made.

For the years 2006 through 2010, the breakdown of replaced meters by age is illustrated in Figure E.12.

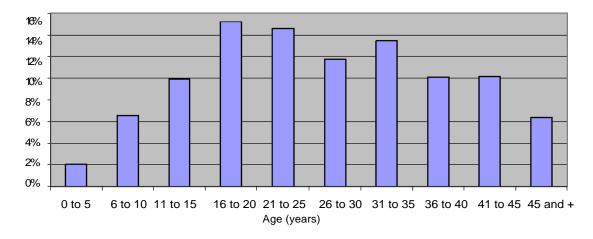


FIGURE E.12: BREAKDOWN OF REPLACED METERS BY AGE, 2006-2010 AVERAGE

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#### Commitment no. 13:

Provide Table R-6.3 in question 6.3 of item B-016-HQD-2, document 1 for every year (requested by RNCREQ).

### Response to commitment no. 13:

TABLE E-13: FINANCIAL ANALYSIS AND IMPACTS OF THE LAD PROJECT ON THE REQUIRED REVENUES (K\$ CURRENT)

	AMI Scenario	2012 2	013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Charges Depreciation	73 895 4 626					26 855 57 183			9 93 53 1	10 00 52 2	10 073 51 961	10 256 52 004		10 <sup>58</sup> 52 6				11 <sup>39</sup> 29 8		
	Tax on publics services	2 0	45 13 <sub>6</sub>	56 25 ₄	136 34 241	18 37 <sub>4</sub>	196	191 36 <sub>533</sub>	186	99 30 <sub>8</sub>	61 27 <sub>3</sub>	170	165	04 17 <del>7</del>	49 14 <sub>1</sub>	149	144	139	96 8 <sub>1</sub>	128	123
	Financing costs	<sup>2</sup> 473	13 6	25 4	<sup>34</sup> 241	57 4	38 <sub>045</sub>	50 533	33 596	30 8	21 3	23 <sub>946</sub>	20 815	17 /	171	12 097	<sup>9</sup> 163	<sup>7</sup> 607	۷1	10 647	13 876
	Required revenue (excluding write- off charges)de radiation)	80 994	111 429	131 784	13 049	129 168	12 279	107 912	101 818	94 42	89 887	86 15	83 240	80 333	78 11	75 851	71 379	59 771	49 766	46 083	48 381
A	Required revenue - Reference scenario	65 974	76 797	87 145	95 856	104 455	11 485 1	115 880	119 609	123 <sup>47</sup> 9	12 7 292	130 584	13 4 776	13 9 536	14 3 307	14 7 054	14 7 719	147 877	14 8 391	148 709	149 238
В	Required revenue (difference between scenarios)	15 020	34 632	44 639	41 193	24 713	10 794	-7 968	-17 791	-29 058	-37 405	-44 43 4	-51 536	-59 203	-65 195	-71 203	-76 340	-88 106	-98 625	-102 626	-100 857
C=A-B																					
	Depreciation and write-off of In- Service Devices	36 800	61 179	41 039	16 232	3 785	1 093	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D																					
E=C+D	Required revenue (differential)	51 820	95 811	85 678	57 425	28 498	11 887	-7 968	-17 791	-29 058	-37 405	-44 43	-51 536	-59 203	-65 195	-71 203	-76 340	-88 106	-98 625	-102 626	-100 857

#### Commitment no. 14:

Provide up-do-date results of the pilot projects, showing client acceptance of the project as demonstrated through non-identifying statistical analysis (requested by SÉ-AQLPA).

#### Response to commitment no. 14:

As of September 19, 2011, the Distributor has installed 8,738 meters in connection with pilot projects in Boucherville, Memphremagog and Montreal. Of these installations, 22 clients refused to have their meters replaced. After discussions with the Distributor's representatives, only 6 refusals remain pending, representing 0.06% of the cases.

Although no official statistical data have been kept on client reaction in the field, the installers have mentioned that clients have said they are satisfied with their new meters. Several clients have reportedly requested that new generation meters be installed at their secondary residences or in their businesses.

Furthermore, the Distributor has not noticed any increase in the number of calls in connection with the project.

#### Commitment no. 15:

Present the Distributor's practice in the service cut-off process with regard to the health and safety of the building occupants (requested by UC).

#### Response to commitment no. 15:

The Distributor reiterates that service interruption is a technical procedure and the last stage of the collection process after numerous attempts to contact the client have been made. In the large majority of cases, since meters are outside the buildings, there is no contact between the client and the collection agent when service is cut off.

Concerning the health and safety of the building occupants, service interruptions are executed in a safe manner. The Distributor's current practice is not to cut off service for clients who possess a life-sustaining device when a healthcare professional confirms the presence of such a device. A reference to that effect is noted in the client's case file. Clients whose service is not cut off for humanitarian reasons represent a low percentage of cases, 2%.

At the current time, when a client's service is cut off and the client's situation justifies that service be restored quickly, service restoration is handled as a priority. Implementing remote service restoration may eventually enable service to these clients to be restored even more quickly.

#### Commitment no. 16:

Verify the availability, for each of the years, of the costs of purchasing and installing the meters from Table R-11.2 of item B-016-HQD-2, document 1 (page 33) and, where applicable, provide the information (requested by UC).

#### Response to commitment no. 16:

The costs of purchasing and installing meters is part of the Distributor's ongoing activities and are included on an annual basis in the Distributor's service cost approved by the Régie.

Table E-16: Trends in purchasing and installation costs for replaced meters 2006-2010

	Number of replaced meters	Purchase cost in \$k	Installation cost in \$k	Total in \$k
2006	66 771	8 022	7 417	15 439
2007	63 405	7 402	7 461	14 863
2008	92 298	11 613	11 166	22 778
2009	94 289	11 038	11 303	22 341
2010	101 108	11 008	11 453	22 562

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#### Commitment no. 17:

Specify the basis for calculating the gains associated with interrupting and restoring service for at clients in collection (13%) (requested by OC).

#### Response to commitment no. 17:

The calculation of these gains is based on the number of collection agent positions that the Distributor will reduce as a result of automating service interruption and restoration. Annual recurring gains of \$10.5 M, or 13% of \$81 M, are based strictly on the reduction of the total salary base associated with these positions and related costs. The gains were calculated on the basis of information available at the time of the evaluation, 2009.

#### Commitment no. 18:

Present the changes anticipated at the current time to the conditions of service following the deployment of the LAD project (requested by AREQ).

#### Response to commitment no. 18:

No changes to the conditions of electricity service (CES) are anticipated at the current time. If changes to the CES are eventually required, the Distributor will contact the Régie.

The Distributor reiterates that it has chosen to limit the scope of the project to implementing AMI information technologies, replacing the current meters with new generation meters, automating meter reading and remote service interruption and restoration.

Lastly, the Distributor reiterates that examining amendments to the CES is not part of this case by virtue of procedural decision D-2011-124 issued by the Régie.

# ATTACHMENT A COMMITMENT 7

Request R-3770-2011

	\$Mour.2011 Cur. Val.	\$M (current) Preparatory	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	TOTAL
Investments	807.9	work <sup>1</sup> 36.7	86.6	247.1	205.1	146.0	69.7	48.8	12.6	0.6	0.6	0.6	0.6	0.6	0.7	12.7	0.7	7.5	35.5	59.0	73.5	78.9	1 124
Information technology (IT) infrastructure	77.6	17.4	18.8	10.1	6.2	11.4	8.3	-	12.0	-	-	-	-	-	-	12.0	-	-	-	-	-	-	96
Project consultant	10.0	7.1	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Subtotal	720.3	12.3	64.7	237.0	198.9	134.6	61.4	48.8	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	7.5	35.5	<i>59.0</i>	73.5	78.9	1 018
Purchase and installation of meters	573.0	6.4	46.6	192.3	155.5	97.7	43.1	42.3	-	-	-	-	-	-	-	-	-	6.8	34.8	58.3	72.8	78.2	835
Telecommunications equipment	105.0	1.9	10.9	33.4	33.3	28.1	12.0	-	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	129
Project consultant	24.0	-	3.1	5.2	5.3	5.3	5.4	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Capitalized borrowing costs	-	-	1.4	0.9	0.6	0.2	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Other	18.3	4.0	2.7	5.1	4.2	3.3	0.8	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Operating Costs	365.3	5.2	73.9	77.1	70.2	55.2	36.0	26.9	15.9	13.1	9.9	10.0	10.1	10.3	10.4	10.6	10.8	11.0	11.2	11.4	11.6	11.9	503
Relocation of information technology resources Telecommunications Various expenses Meter reading activity <sup>2</sup>	30.6 131.3 52.3 56.9	4.6 - 0.6	6.9 1.1 5.2	7.1 7.8 1.8 9.1	8.6 9.9 2.9 10.5	11.2 11.2 4.0 10.4	3.4 11.2 4.6 5.0	0.6 11.4 4.7 3.6	5.3 11.5 4.9 3.6	2.9 11.6 5.0 2.9	- 11.8 5.2 2.7	11.9 5.3 2.7	12.1 5.5 2.8	12.2 5.6 2.9	12.4 5.8 3.0	12.5 6.0 3.1	12.7 6.2 3.1	12.8 6.4 3.2	13.0 6.5 3.3	13.1 6.7 3.4	13.3 6.9 3.5	13.5 7.2 3.6	39 237 102 88
Reduction of costs and revenue <sup>2</sup>	218.6	-	61.2	55.2	44.8	27.7	22.6	18.9	4.2	3.5	3.3	3.2	3.2	3.2	3.3	3.3	3.4	3.4	3.5	3.6	3.7	3.7	279
	(124.4)	-	(0.4)	(3.9)	(6.6)	(9.4)	(10.8)	(12.3)	(13.5)	(12.9)	(12.9)	(13.2)	(13.5)	(13.7)	(14.0)	(14.3)	(14.6)	(14.9)	(15.2)	(15.5)	(15.8)	(16.1)	(243)
	1 173.1	42.0	160.5	324.3	275.2	201.2	105.7	75.6	28.5	13.7	10.6	10.6	10.7	10.9	11.1	23.2	11.5	18.5	46.7	70.4	85.1	90.8	1 627
Residual values Tax on public services	(85.6)																						

1.5

1 089.0

1 001.4

Gross revenue

**AMI Scenario Analysis** Discount rate 6.099%

Gross revenue excluding IT infrastructure

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Preparatory work (R-3723-2010) of \$42 M over the period from 2010 to 2012 This item does not constitute an activity budget but is included for economic analysis 1. 2.

#### Reference Scenario Analysis

6.099%

Discount rate

	\$M cur. 2011	M\$ (cur																					
	Curr. Val.	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	TOTAL	
Investments Purchase and installation of meters Handheld microcomputer and Equipment	<b>500.4</b> 445.2 55.1	<b>63.8</b> 61.9 1.9	<b>71.6</b> 58.6 12.9	<b>61.5</b> 59.4 2.1	<b>62.2</b> 60.0 22	<b>62.5</b> 60.3 2.2	<b>33.4</b> 25.3 8.1	<b>34.6</b> 25.6 9.0	28.2 25.9 2.3	28.4 26.0 2.4	<b>28.6</b> 26.1 2.4	<b>29.0</b> 26.5 2.5	<b>41.5</b> 26.8 14.7	<b>29.6</b> 27.1 2.5	<b>29.9</b> 27.3 2.6	30.3 27.6 2.6	<b>30.6</b> 28.0 2.6	<b>43.2</b> 28.4 14.8	31.4 28.7 2.6	<b>31.7</b> 29.1 2.6	<b>32.1</b> 29.5 2.6	<b>804</b> 708 96	
Operating costs	871.8	62.1	63.8	65.5	67.2	69.0	70.9	72.7	74.7	76.7	78.8	80.9	83.2	85.4	87.7	90.1	91.5	94.0	96.6	99.2	101.9	1 612	

Meter reading salary base
Other meter reading costs 587.7 40.7 43.2 45.8 47.2 48.6 50.1 53.1 54.7 56.4 58.1 59.8 63.4 67.3 69.3 1 094 41.9 44.5 51.6 61.6 65.3 71.4 186.3 14.1 14.5 14.8 15.0 15.3 15.6 15.8 16.2 16.5 16.8 17.2 17.6 18.0 18.3 18.7 18.1 18.4 18.8 19.2 19.6 339 Meter reading function costs 17.2 1.2 1.2 1.3 1.3 1.3 1.4 1.4 1.5 1.5 1.6 1.6 1.7 1.7 1.7 1.8 1.9 1.9 2.0 2.0 2.1 32 Telecommunications 80.6 6.1 6.2 6.3 6.4 6.6 6.7 6.8 7.0 7.1 7.2 7.4 7.5 7.7 7.8 8.0 8.2 8.3 8.5 8.7 8.8 147 1 372.2 125.8 135.4 127.1 129.4 131.6 104.2 107.3 103.0 105.1 107.3 109.9 124.7 115.1 117.6 120.4 122.1 137.2 127.9 130.9 134.0 2 416 Residual values -81.2 **Gross Revenue** 1 291.0

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Results of the economic analysis

M\$ (discounted 2011) analysis period: 2011-2031	AMI Scenario*	Reference scenario	Difference
Investments	720.3	500.4	219.9
Operating expenses	365.3	871.8	(506.6)
Tax on public services	1.5	-	1.5
Residual values	(85.6)	(81.2)	(4.4)
Total	1 001.4	1 291.0	(289.6)
excluding IT infrastructure			

Discount rate 6.099%

#### Analysis of the impacts on required revenue

Charges Depreciation Tax on public services Fina<u>ncinas</u>costs AIM Scenario

-	Required revenue - Reference Scenario  Required revenue - (difference of scenarios)	73 895 4 626 0 2 473	77 137 20 456 16 13 820	70 176 35 564 77 25 967	55213 47459 136 34241	35 975 55 184 182 37 827	26 855 57 183 196 38 045	15922 55266 191 36533	13127 54909 186 33596	9 931 53 998 181 30 311	10 002 52 613 175 27 097	10 073 51 961 170 23 946	10 256 52 004 165 20 815	10444 52047 160 17682	10586 52491 154 14881	10 787 52 818 149 12097	10 983 51 089 144 9163	11187 40838 139 7 <sub>607</sub>	11398 29961 133 8274	11616 23692 128 10647	11 905 22 477 123 13 876
Α .	Required revenue (excluding write-off charges)	80 994	111 429	131 784	137 049	129 168	122 279	107 912	101 818	94 421	89 887	86 150	83 240	80 333	78 112	75 851	71 379	59 771	49 766	46 083	48 381
В	Depreciation and write-off of in-service devices	65 974	76 797	87 145	95 856	104 455	111 485	115 880	119 609	123 479	127 292	130 584	134 776	139 536	143 307	147 054	147 719	147 877	148 391	148 709	149 238
C=A-I	Required revenue (differential)	15 020	34 632	44 639	41 193	24 713	10 794	-7 968	-17 791	-29 058	-37 405	-44 434	-51 536	-59 203	-65 195	-71 203	-76 340	-88 106	-98 625	-102 626	-100 857
D		36 800	61 179	41 039	16 232	3 785	1 093	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E=C+D		51 820	95 811	85 678	57 425	28 498	11 887	-7 968	-17 791	-29 058	-37 405	-44 434	-51 536	-59 203	-65 195	-71 203	-76 340	-88 106	-98 625	-102 626	-100 857

Original: 2011-09-21

HQD-3, Document 2, Attachment A