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RESTRUCTURING PAPER

ON A

PROPOSED PROJECT RESTRUCTURING  
OF THE  
HAITI ELECTRICITY LOSS REDUCTION PROJECT  
GRANTS NOS. H2510-HA AND H5100-HT  
AUGUST 3, 2006 AND SEPTEMBER 8, 2009

TO THE

REPUBLIC OF HAITI  
February 28, 2013

## ABBREVIATIONS AND ACRONYMS

CMS	Customer Management System
EDH	Electricité d'Haïti
IDA	International Development Association
LCM	Large Customer Unit Management
M&E	Monitoring and Evaluation
MTPTCEE	Ministry of Public Works, Transport, Communication and Energy ( <i>Ministère des Travaux Publics, Transport, Communication et Energie</i> )
PIU	Project Implementation Unit
PPF	Project Preparation Facility
PREPSEL	Projet pour la reduction des pertes dans le secteur électrique
SDR	Special Drawing Rights
TA	Technical Assistance
TSMS	Technical Service Management System

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## I. SUMMARY

1. This Restructuring Paper seeks the approval of the Regional Vice President<sup>1</sup> for a Level Two<sup>2</sup> restructuring of both the Haiti Electricity Loss Reduction Project (Grant No. IDA-H2510-HA) and its corresponding Additional Financing (Grant No. IDA-H5100-HT), henceforth collectively referred to as “the Project”, and to proceed with the corresponding amendments to the Project’s legal documents. The Project has been previously restructured on June 25, 2010, to re-adjust its activities and deadline consecutively to the earthquake that has affected Haiti on January 12, 2010 (see chapter 6). The proposed restructuring would (i) increase funding to *Components 1.1, 3 and 4.1* to strengthen support for specific items such as information systems, remote meters, technical assistance, and implementation units; (ii) decrease funding to *Components 1.2, 2 and 3* for reallocation of funds in completed activities and categories ; and (iii) extend the closing date of the Project by six months.

2. Haiti’s fragile electricity sector is progressively recovering from the 7.0 magnitude (Richter scale) earthquake on January 12, 2010 that severely impacted its infrastructure. Current Government of Haiti (GoH) expressed an important involvement in the Energy sector, recognized as a key national priority for development and economic growth. This involvement is relayed by a dynamic Electricité d’Haïti’s (EDH) new management team, which has permitted to move forward the sector’s reconstruction agenda. However, EDH’s still weak technical and operational capacity constitutes the main hurdle to the state power company’s financial recovery. As of December 2012, the electricity total losses were above 60 percent and the Cash Recovery Index<sup>3</sup> was around 33 percent.

## II. PROJECT STATUS

3. The original IDA Electricity Loss Reduction Project, PREPSEL (US\$6 million, effective on July 31, 2007) and its Additional Financing (US\$5 million, effective on December 15, 2009) have had a level two restructuring on June 25, 2010, the combined US\$ 11 million restructured Project sought to implement the following activities:

- Component 1: Improvement in EDH management systems and practices (US\$4.62 million)
- Component 2: Improvement in quality of service and increase in revenue collection of EDH for selected groups of customers (US\$1.91 million)
- Component 3: Participatory approach, project management, M&E and impact evaluation and replication strategy (US\$1.49 million)
- Component 4: Management support to EDH (US\$2.78 million)
- Contingency Reserve (US\$0.2 million)

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<sup>1</sup> As the restructuring involves an extension of the additional grant closing date beyond the three-year limit (OP 13.20), Regional Vice Presidency’s approval is needed for such a request.

<sup>2</sup> As a Level Two restructuring, the proposed restructuring would retain the Project’s original Development Objective which is, “to contribute to the sustainable improvement in the quality of electricity services to customers and to strengthen the financial and operational performance of the public electricity utility, Electricité d’Haïti (EDH)”.

<sup>3</sup> Cash Recovery Index (CRI): index representing the combined technical and commercial efficiency of a power utility.

4. As of December 2012, 72 percent of the Project budget was disbursed and 94 percent was committed. Successful implementation<sup>4</sup> of the Project's key activities since the previous restructuring has permitted to reach important milestones, paving the way for EDH's sustainable improvement. These key activities and achievements include: (i) the installation of a new billing system (Customer Management Service, CMS) to reestablish the flow of funds into the utility, (ii) the installation of a new grid maintenance system (Technical Service Management System, TSMS) to allow the utility to identify and repair breakdowns in the system, (iii) the technical assistance to EDH management, in particular to design the company's commercial action plan (under implementation) and sector master plan (under preparation), (iv) the installation of remote meters at the private producers' delivery points and (v). the award of a firm for the supply and installation of remote metering for the large customers.

5. Efficient procurement under the Project for the completed activities engender a substantial amount of uncommitted funds – around US\$ 495 thousand – to be reallocated to strengthen the Project's impact and prepare activities of the newly approved operation<sup>5</sup>. Unfortunately, important and unexpected delays outside of EDH control recently occurred during the implementation of the Project's major activity, the supply and installation of remote meters (see paragraph 16).

6. The Project's achievement of its Development Objective is currently rated moderately satisfactory and moderately unsatisfactory for the Implementation Progress, essentially due to the tight timeline for delivery of the last major activity under implementation (supply and installation of remote meters for EDH electricity suppliers and priority customers). The Project is in compliance with all of the covenants imposed by the Financing Agreement. The fiduciary management system is rated satisfactory. Audit reports for the Project were submitted on time for 2009 and 2011 (3 month delay for the 2010 report), and their review did not highlight any significant issues. There are no unresolved environmental, social or other safeguard issues affecting the Project's implementation

### **III. PROPOSED CHANGES**

7. The previous Level Two restructuring approved on June 25, 2010 (i) increased funding to *Components 1, 2.3, 3.2 and 4.1* for specific items such as information systems, remote meters, technical assistance, and operating costs; (ii) decreased funding to *Components 2.2 and 2.3* for grid rehabilitations works and standard meters; (iii) modified outcome indicators accordingly; (iv) postponed the deadline for submission of EDH's audited financial statements; and (v) extended the closing date of the Project by one year<sup>6</sup>.

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<sup>4</sup> The implementation of the Customer Management and Technical Service Management Systems (CMS and TSMS) has been completed in October 2012, and the technical assistance to the MTPTEC has ended in June 2012.

<sup>5</sup> Haiti Rebuilding Energy Infrastructure and Access project, P127203 approved by the Board of Directors on September 26, 2012.

<sup>6</sup> Extension of closing date from February 28, 2012 to February 28, 2013, which extended the additional grant period from two to three years.

8. This restructuring proposes to reallocate funds among the various components and categories, to postpone the deadline for submission of EDH's audited financial statements, and to extend the closing date of the Project by six months, from February 28, 2013 to August 31, 2013. The reallocations would increase funding for: (i) the sustainable installation of billing system, (ii) the monitoring of installation of remote metering systems for large customers, (iii) capacity building for the EDH technical unit, (iv) technical assistance for EDH's management, and (v) realization of monitoring and evaluation surveys to measure the Project's satisfaction level inside EDH and for EDH's customers.. The restructuring proposes to decrease funding for the punctual expertise to support EDH Management and to use remaining funding of completed and activities like capacity building for the MTPTCE energy unit and grid works and standard meters for residential customers (activities partially funded by other donors).

#### **A. Reallocations among Components and Categories**

9. ***Increase Component 1 by US\$0.14 million:*** The budget for Component 1 would be increased by US\$0.14 million to US\$4.76 million. EDH's new billing and grid maintenance systems have been successfully installed in February 2012 and are currently in operational use. However, usual difficulties linked to the replacement of operational systems may appear and potentially engender commercial losses, in particular for the CMS. For this reason, the Project plans to provide supplemental assistance to EDH by training its commercial staff and providing expertise to accompany this modernization process.

10. ***Decrease Component 2 by US\$0.07 million:*** Bank financing of Component 2 would decrease by US\$0.07 million, as the works on the grid have been completed in a satisfactory and efficient manner.

11. ***Decrease Component 3 by US\$0.13 million:*** This component would increase by US\$0.13 million to US\$1.36 million, as the energy unit to support the MTPTCE has been closed by the Minister of TPTCE, to be replaced by an Energy Cell supported by the new Bank funded Energy operation.

12. ***Increase Component 4 by US\$0.06 million:*** Funding for this component will increase by US\$0.06 million to US\$2.8 million. The additional funding will be dedicated to purchase and install prefabricated offices , computers and communications equipment for the recently created EDH technical unit in charge of the supervision of donors funded projects, and in particular the Haiti Rebuilding Energy Infrastructure and Access project (P127203).

#### **B. Change in Outcome Indicators and Values**

13. Outcome indicators will not need to be amended consequently to the restructuring, as no change occurred in the nature of the Project's activities. End-of-project values have been re-assessed in 2011, six months following the approval of the

previous Project restructuring. These values will be kept identical, viewing the short duration of the proposed Project's deadline extension and the inertia of these indicators.

### **C. Extension of Closing Date**

14. A six month extension of the closing date to August 31, 2013 is requested to allow sufficient time for the Project to complete its main activity – installation of a remote metering system for priority customers - and observe the impact of this modern infrastructure provided on EDH commercial revenues<sup>7</sup>, and thus on the Project's development objectives.

15. Only 10 percent of the remote meters activity (representing US\$ 1.7 million, 15 percent of the Project's envelope) has been disbursed, 60 percent of the activity's budget was expected to be used at the supply of all equipment purchased, 20 percent at the completed installation of all meters and the remaining 10 percent at the operational reception of the infrastructure by EDH. Until the supplier's unexpected notification of delay in January 15, 2013, the remote meters activity was planned to be completed before February 15, 2013 as initially planned in the contract. The contract is for 400 units of 'Type 9S'<sup>8</sup> meters, and 29 units of 'Type 16S' meters. However, the manufacturer mistakenly produced only 29 of Type 9S, and 400 of Type 16S. Correcting this error will result in an expected supply of goods by March 15<sup>th</sup>, 2013 and its installation completed by April 30<sup>th</sup>, 2013. With this new development, the project will be unable to reach its Development Objective without this extension, requested on an exceptional basis as the additional grant has reached the three-year limit. It is now expected that implementation delays will be inevitable; all possible alternatives have been analyzed by EDH, its supplier and with the assistance of the Bank Project's team. There are no practical alternatives for the supply of equipment by the current closing date.

16. As the delays entirely due to the supplier's negligence are outside the control of EDH teams and would lead to the non-completion of this activity before the Project's deadline, EDH's overseeing entity (Ministry of Public Works, MTPTEC) has requested an extension of the Project's deadline (see request letter of January 23<sup>rd</sup>, 2013 attached). The restructuring therefore proposes an extension of the Project's end date, from February 28<sup>th</sup>, 2013 to August 31<sup>st</sup>, 2013, to allow the complete installation of the 429 remote meters for EDH's key customers.

## **IV. APPRAISAL SUMMARY**

### **A. Economic and financial analysis**

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<sup>7</sup> The installation of remote meters for the state power company's 429 priority customers would potentially secure up to 60% of the utility's commercial revenues.

<sup>8</sup> A '9S type' meter is an indirect measurement electricity meter (via power transformation), suited for very large customers. A '16S type' meter is a direct measurement electricity meter, suited for small industries and businesses. Construction cost and process are similar for these two different meters.

17. From a financial point of view, the major benefits to EDH of implementing the project remain the same. EDH will benefit from increased revenues due to a progressive widening of its customer base, increased billed sales of electricity, secured metering for large customers representing the large majority of the utility's revenues, and an improvement in the collection/billing ratio for electricity.

18. An economic and financial analysis have been conducted by the consultancy firm Tetra Tech in March 2012, conducting to the firm's commitment to achieve a CRI target of 40 percent by the end of its contractual assistance to EDH, in end-April 2013. The Project re-assessed its CRI target accordingly, but the incomplete re-assessment of the post-earthquake indicators' baseline lead to an inability to quantify benefits. In September 2012, EDH launched an ambitious commercial action plan aiming to connect 100,000 new residential customers and achieve a CRI target of 57 percent by September 2013.

19. Based on a preliminary qualitative analysis done consecutively to the previous restructuring, it is already possible to assert that from an economic point of view, the customers' benefits continue to accrue because of the consumer surplus created by the additional electricity to be added to the network at a price below the consumer's demand curve. From the societal perspective, the economic losses incurred by not serving the corresponding electricity demand are deemed to be far higher than the cost of serving that demand.

## **B. Risk**

20. The elimination of works – and in particular the installation of a modern remote metering system for key clients - could negatively affect commercial and financial performance of EDH, hence the overall quality of service. The impact is expected to be mitigated because other donors intend to finance works on the networks serving the large industrial customers. As a result, the overall risk rating of the original Project and its Additional Financing remains substantial.

**ANNEX 1:  
Results Framework and Monitoring**

**HAITI: ELECTRICITY LOSS REDUCTION PROJECT**

Project Outcome Indicators	D=Dropped C=Continued N= New R=Revised	Baseline (Actual at the time of restructuring)		Cumulative Target Values*
		UoM	Current Value	End-of-Project
<i>Indicator One</i> Improvement in the Cash Recovery Index	C	%	33.2	40
<i>Indicator Two</i> Percentage of customers served at least 6 hours per day on average in the zones served by EDH	C	%	100	50
<b>Intermediate Results</b>				
<b><i>Component 1: Installation of CMS and TSMS</i></b>				
<i>Intermediate Result Indicator One</i> Number of consumers incorporated into the new CMS database	C		135,000	185,315
<i>Intermediate Result Indicator Two</i> Number of consumers incorporated into the new customer-installations link database and attended through TSMS	C		135,000	185,315
<i>Intermediate Result Indicator Three</i> Number of EDH employees successfully trained in the use of the new CMS and TSMS	C		296	435
<i>Intermediate Result Indicator Four</i> Active Customers/employees ratio	C		95	100
<b><i>Component 2: Improvement in Quality of Service, and Increase in Revenue Collection of EDH for Selected Group of Customers</i></b>				
<i>Intermediate Result Indicator One</i> Percentage of small customers <sup>1</sup> served at least 6 hours a day on a monthly average	C		100	50

<b>Intermediate Result Indicator Nine</b> Percentage of large customers <sup>1</sup> served at least 12 hours per day on average	C	%	39	60
<b>Intermediate Result Indicator Ten</b> Number of large consumers <sup>1</sup> regularized	C		1270	1270
<b>Intermediate Result Indicator Eleven</b> Increase in Cash Recovery Index of large customers <sup>1</sup>	C	%	33.2	85
<b>Intermediate Result Indicator Twelve</b> Number of EDH employees trained to attend and follow up on large consumers <sup>1</sup>	R		0	TBD*
<b>Intermediate Result Indicator Fourteen</b> Number of large customers satisfied	C		TBD	1270
<b>Component 3: Participatory Approach, Project Management, M&amp;E</b>				
<b>Intermediate Result Indicator One</b> Number of EDH employees satisfied with the new system/ the project	C		0/1,938	625/1,938
<b>Intermediate Result Indicator Two</b> Successful training of MTPTCE energy staff to supervise performance indicators	C		N/A	Completed
<b>Component 4: Management Support to EDH</b>				
<b>Intermediate Result Indicator One</b> Adoption and implementation by EDH of new, sound procedures in: <ul style="list-style-type: none"> <li>○ Financial management</li> <li>○ Internal control</li> <li>○ HR</li> <li>○ Commercial management</li> <li>○ Technical management</li> </ul>	C		N/A	Implemented
<b>Intermediate Result Indicator Two</b> Implementation of the Financial Management Action Plan	C		N/A	Implemented

1: Large customers: Consumption of at least 1000kWh per month ; small customers: rest

**ANNEX 2A:**  
**Financing Plan**  
**HAITI: ELECTRICITY LOSS REDUCTION PROJECT**

Financing Plan (US\$m.)		
Source	At Board Approval	Revised
<b>Beneficiary</b>	2.30	1.20
<b>IDA</b>	11.00	11.00
<b>Total</b>	13.30	12.20

**ANNEX 2B:  
Project Costs  
HAITI: ELECTRICITY LOSS REDUCTION PROJECT**

Component (in US\$)	Original Budget	Modified Budget	Modified vs Original
<b>Component 1: Installation of CMS/TSMS</b>	<b>3,676,373.00</b>	<b>4,759,842.00</b>	<b>1,083,469.00</b>
1.1 Incorporation of CMS	2,953,865.00	3,897,032.00	943,167.00
1.1.1 Acquisition of CMS	2,953,865.00	3,662,032.00	708,167.00
1.1.2 Surveys	0.00	235,000.00	235,000.00
1.2 Incorporation of TSMS	692,508.00	837,810.00	145,302.00
1.1.1 Acquisition of TSMS	692,508.00	837,810.00	145,302.00
1.1.2 Surveys	-	-	-
1.3. Support for restructuration of EDH anti-fraud unit	30,000.00	25,000.00	(5,000.00)
<b>Component 2: Improvement in quality of service and increase in revenue collection of EDH for selected groups of customers</b>	<b>3,514,998.00</b>	<b>1,842,902.00</b>	<b>(1,672,096.00)</b>
2.1 Personnel for the socio-economically mixed area and for the LCM	50,000.00	39,000.00	(11,000.00)
2.2: Improve quality of service to, and increase EDH revenue from, the socio-economically mixed zone	1,519,998.00	52,902.00	(1,467,096.00)
2.2.1 Improve in network			
a.works on the grid	300,000.00	-	(300,000.00)
b.Meters	500,000.00	-	(500,000.00)
c.Prepaid meters (including consulting work)*	290,000.00	-	(290,000.00)
d.Other	30,000.00	29,000.00	(1,000.00)
2.2.2 Procedures in the zone			
a.Computers for commercial agency*	107,998.00	16,440.00	(91,558.00)
b.Training	72,000.00	7,462.00	(64,538.00)
2.2.3 Gridsworks in the zone - slums*	220,000.00	-	(220,000.00)
2.3: Regularisation of large consumers through the application if the new customer oriented management approach.	1,945,000.00	1,751,000.00	(194,000.00)
2.3.1 Diagnostic	30,000.00	17,000.00	(13,000.00)
2.3.2 Remote meters	1,400,000.00	1,700,000.00	300,000.00
2.3.3 Works on the grid	490,000.00	19,000.00	(471,000.00)
Other	25,000.00	15,000.00	(10,000.00)
<b>Component 3: Participatory approach, project management, M&amp;E and impact evaluation and replication strategy</b>	<b>1,075,600.00</b>	<b>1,359,499.00</b>	<b>283,899.00</b>
Component 3.1: Participatory approach (surveys, press releases, round tables etc)	73,200.00	528.00	(72,672.00)
Component 3.2. Project management, M&E, impact evaluation	1,002,400.00	1,358,971.00	356,571.00
3.2.1 Project Coordination Unit	638,400.00	891,086.00	252,686.00
3.2.2 Capacity building to MTPTCE	250,000.00	167,885.00	(82,115.00)
3.2.3 Other (including pre fabricated offices)	114,000.00	300,000.00	186,000.00
<b>Component 4: Management support to EDH</b>	<b>2,573,029.00</b>	<b>2,831,406.00</b>	<b>258,377.00</b>
Component 4.1: Technical Assistance to the management team of EDH	2,297,200.00	2,830,577.00	533,377.00
Component 4.2: Punctual expertise	275,829.00	829.00	(275,000.00)
Contingencies	160,000.00	206,351.00	46,351.00
<b>Total costs</b>	<b>11,000,000.00</b>	<b>11,000,000.00</b>	<b>-</b>

**ANNEX 3A:**  
**Proposed Reallocations**  
**HAITI: ELECTRICITY LOSS REDUCTION PROJECT**  
Grant: H2510HA

Category	Amount of the Financing Allocated (expressed in SDR)		Percentage of Expenditures to be financed (in %)	
	Current	Revised	Current	Revised
(1) Goods, Training, Consultants' services for Part 1 of the Project	2,248,908	2,309,571	100%	100%
(2) Goods, Training, Consultants' service for Part 2.2 of the project	70,194	48,500	100%	100%
(3) Goods, Works, Training, Consultants' service for Part 2.3(b) of the project	925,917	917,033	100%	100%
(4) Goods, Training, Consultants' services and Operating Costs for Part 3 and 4.2of the project	632,570	645,538	100%	100%
(5) Refund of the Project Preparation Advance (PPF)	45,185	45,185	Amount payable to Section 2.07 of the General Conditions	
(6) Unallocated	136,226	134,173		
(7) Goods, Training, Consultants' services and Operating Costs for Part 4.1 of the project	41,000	0	100%	100%
<b>TOTAL</b>	<b>4,100,000</b>	<b>4,100,000</b>		

**ANNEX 3B:**  
**Proposed Reallocations**  
**HAITI: ELECTRICITY LOSS REDUCTION PROJECT**  
Grant: H5100HT

Category	Amount of the Financing Allocated (expressed in SDR)		Percentage of Expenditures to be financed (in %)	
	Current	Revised	Current	Revised
(1) Goods, Training, Consultants' services for Part 1 of the Project	905,105	1,052,917	100%	100%
(2) Goods, Training, Consultants' service for Part 2.2 of the project	0	0	100%	100%
(3) Goods, Works, Training, Consultants' service for Part 2.3(b) of the project	264,000	264,000	100%	100%
(4) Goods, Training, Consultants' services and Operating Costs for Part 3 and 4.2 of the project	333,696	258,380	100%	100%
(5) Refund of the Project Preparation Advance (PPF)	0	0	Amount payable to Section 2.07 of the General Conditions	
(6) Unallocated	6,600	6,600		
(7) Goods, Training, Consultants' services and Operating Costs for Part 4.1 of the project	1,790,599	1,718,103	100%	100%
<b>TOTAL</b>	<b>3,300,000</b>	<b>3,300,000</b>		