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The World Bank

Report No: 82524

RESTRUCTURING PAPER

ON A

PROPOSED PROJECT RESTRUCTURING
OF
INCREASED ACCESS TO MODERN ENERGY PROJECT
(IDA CREDIT NUMBER 4587-BJ, GEF GRANT NUMBER TF094664
& AFREA GRANT NUMBER TF099823)

TO THE

REPUBLIC OF BENIN

October 14, 2013

ABBREVIATIONS AND ACRONYMS

ABERME	*Agence Béninoise d'Electrification Rurale et de Maitrise de l'Energie* (Rural Electrification Agency)
AFIC	*Agence Forestière Inter communale* (Inter-Communal Agency for Natural Resource Management)
CEB	*Communauté Electrique du Bénin* (Benin/Togo Generation and Transmission Power Company)
CFA	Franc des Colonies Françaises d'Afrique
CNCD	*Commission Nationale des Combustibles Domestiques* (National Forest Cover Remote and Monitoring Center)
DGE	*Direction Général de l'Energie* (Directorate of Energy)
DNMP	Direction Nationale des Marchés Publics
ESDP	Energy Services Delivery Project
GoB	Government of Benin
HPP	HydroPower Plant
IAME	Increased Access to Modern Energy
LPG	Liquefied Petroleum Gas
MMEE	*Ministère des Mines, de l'Energie et de l'Hydraulique* (Ministry of Mining, Energy and Hydraulics)
PDO	Project Development Objective
SBEE	*Société Béninoise d'Energie Electrique* (Benin Distribution Power Utility)
SDR	Special Drawing Rights
SIGFiP	Système Informatisé de Gestion des Finances Publiques
SIEF	Système d'Information Ecologique et Forestière (SIEF)
SIEP	Système d'Information et d'Evaluation Permanente (SIEP)
UCP/PFSE	Project Implementation Unit
WAPP	West African Power Pool

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BENIN
INCREASED ACCESS TO MODERN ENERGY

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PROJECT DATA SHEET

Restructuring Type: Level two		
1. Basic Information		
Project ID & Name	P110075: BJ-Increased Access to Energy SIL	
Country	Benin	
Task Team Leader	Franklin K.Gbedey	
Sector Manager/Director	Meike van Ginneken	
Country Director	Madani M. Tall	
Original Board Approval Date	06/23/2009	
Original Closing Date:	06/30/2015	
Current Closing Date	06/30/2016	
EA Category	C-Not Required	
Revised EA Category	B-Partial Assessment-Partial Assessment	
EA Completion Date		
Revised EA Completion Date		
2. Revised Financing Plan (US$m)		
Source	**Original**	**Revised**
BORR	51.85	1.85
ESMP	0.00	2.00
EUIB	23.09	23.09
FFEM	1.30	1.30
FSCO	2.00	2.00
IDA	70.00	52.00
KFW	18.70	18.70
SUBB	9.75	9.75
Total	176.69	110.69
3. Borrower		
Organization	**Department**	**Location**
Government of Benin		Benin
4. Implementing Agency		
Organization	**Department**	**Location**
Ministère de l'Energie et de l'Eau (MME)	Direction de l'Energie	Benin
Société Béninoise d'Energie Electrique (SBEE)	Direction Générale	Benin
Communauté Electrique du Bénin (CEB)		Togo
Agence Béninoise d'Electrification Rurale et de la Maitrise de l'Energie		Benin

5. Disbursement Estimates (US$)

Actual amount disbursed as of 05/16/2013 **4, 504, 017.09**

Fiscal Year	Annual	Cumulative
2011	734,876.60	734,876.60
2012	-51,425.15	683,451.45
2013	2,337,594.57	3,021,046.02

6. Policy Exceptions and Safeguard Policies

Does the restructured project require any exceptions to Bank policies?	N
Does the restructured project trigger any new safeguard policies? If yes, please select from the checklist below and update ISDS accordingly before submitting the package.	N

7. Project Development Objectives/Outcomes

Original/Current Project Development Objectives/Outcomes

The project's development objective is to improve reliability and efficiency of, and access to, modern energy services in Benin.

INCREASED ACCESS TO MODERN ENERGY PROJECT

RESTRUCTING PAPER

A. SUMMARY

1. The proposed changes to the *Republic of Benin Increased Access to Modern Energy Project* (Credit No. 4587-BJ) (P110075) are, as follows: (i) canceling activities that have not advanced and are impossible to implement before the credit closing date and canceling the corresponding financing amounting to (in SDR) the equivalent of US$ 15.5 million; (ii) modifying the components by adding activities that reflect new government priorities; (iii) reallocating credit proceeds in accordance with the revised project description and corresponding procurement plan; (iv) amending the results framework to reflect revised indicators and targets that correspond to the new activities; (v) simplifying and strengthening the implementation arrangements by reducing the number of implementation agencies from four (4) to two (2); and (vi) extending the credit closing date by one year from June 30, 2015 to June 30, 2016 to allow for the completion of activities.

2. The proposed restructuring is expected to significantly enhance project implementation, accelerate disbursements and yield tangible results by the revised closing date. The restructuring will not affect the Project Development Objectives or the environmental and social safeguards category and as such it qualifies as a Level Two restructuring under OP 10.00 which is submitted to the Country Director for approval.

B. PROJECT STATUS

3. The *Increased Access to Modern Energy Project* (IAME project) in the amount of SDR 47.5 million (US$70 million equivalent) was approved on June 06, 2009 and became effective on April 30, 2010. The project was restructured in October 2011 to: (i) clarify the activities to be financed by IDA under sub-component B.2, in light of the parallel co-financing provided by the Africa Renewable Energy Access trust fund (AFREA), (ii) revise the disbursement table to reflect the correct activities to be financed by IDA under subcomponent B.2, and (iii) extend the period for effectiveness of the co-financing agreements.

4. The project is rated moderately unsatisfactory for progress towards achievement of the project development objective and for implementation progress because of the 9 % disbursement rate after 3 years of project implementation. However, the commitments to date are $22 million representing 31% of the total project financing and procurement processes have been initiated for approximately 70% of works and goods contracts and 75% of the consultants' services contracts. Even though the disbursement remains low, considerable effort has been made to improve procurement. This effort has borne fruit as the percentage of contracts under procurement has roughly doubled when compared with the status at April 2012 (when only 41% of the total contracts were under procurement).

5. The proposed restructuring will not affect the project development objective that is: to improve reliability, efficiency, and access to modern energy services in Benin. The project is comprised of three components: (A) Electrical Network Upgrading, (B) Electrification and Modern Energy Services, and (C) Sustainable Energy Services.

Component A: Electrical Network Upgrading (US$ 43.33million)

6. This component supports the upgrading of the existing transmission and distribution grid and enables the expansion of the network for further electrification. The planned activities include the construction of two transmission lines, rehabilitation of distribution networks in key urban centers, and measures to enhance lighting and appliance efficiency to help reduce peak load and energy consumption.

7. *Transmission sub-component (US $ 11.99 millions).*
All the contracts are signed and the advances have been paid. Site mobilization is ongoing and the construction works have started. This component is co-financed by EIB and KfW. The activities are on track to be completed by November 2014.

8. *Distribution sub-component (US$ 31.34 million)*
$4 million in contracts have been awarded and an advance payment was issued in March 2013. The engineering studies for the remaining purchase of equipment have been completed. The bidding process for this equipment was launched in May 2013 with the contract award anticipated in February 2014, and the completion of installation in December 2015. The portion of this component related to the construction of the SCADA system which cannot be completed before the closing date will be cancelled.

Component B: Electrification and Modern Energy Services (US$ 12 million)

9. This component supports the provision of modern energy services in rural areas and consists of two components focused on: (a) rural electrification, and (b) provision of modern biomass energy and substitute fuels, respectively.

10. *Rural Electrification subcomponent (US $ 10 million)*
While some technical assistance has begun, very little progress has been made on implementing the proposed concession model, mainly due to capacity constraints in the rural electrification agency.

11. *Biomass subcomponent (US $ 2 million)*
Most of the contracts under this component have been signed signaling good progress. The implementation of the forest management program has started. The consultant in charge of drafting the biofuel law in Benin is selected. The contracts for the procurement of 16,000 gas cook stoves have been signed.

Component C: Sustainable Energy Services (US $ 6.68 million)

12. This component supports the provision of technical assistance to improve the financial autonomy and performance of key sector institutions and enhance the capacity to better plan and regulate Benin's energy sector. Implementation of the planned activities

has been slower than expected. The procurement process is well advanced for some activities such as the master plan and the environmental impact assessment guide for the energy sector and contracts have been signed for a number of other activities related to the support to the PIU and implementation agencies, such as the procurement of vehicles and office equipment. On the other hand, the
terms of reference (ToRs) for several other studies have not yet been drafted.

C. PROPOSED CHANGES

13. The restructuring proposes to: reduce the number of project activities, and eliminate activities that have progressed slowly, to make the project more focused; as well as add some quick-disbursing strategic priority activities. The changes in the activities would result in a cancellation of the corresponding amount of financing US$15.5 million equivalent in SDR (22% of the original IDA amount). The allocation of credit proceeds would be adjusted to reflect the changes in each of the components and contingencies would be allocated as the cost of various components is now better known. The results framework would be revised to reflect the indicators and targets that correspond to the new activities. The restructuring would also streamline implementation arrangements by transferring activities implemented by the Rural Electrification Agency (ABERME) and the distribution utility (SBEE) to the Directorate of Energy (DGE) that has proven to be a more effective implementing agency. The closing date would be extended by a year to ensure completion of activities. Each will be dealt with in turn below.

- **Components**

Component A: Electrical Network Upgrading (adjusted from US$ 43.33million to US$ 41.6 million)

14. The restructured project will not only support the construction of two transmission lines but also the upgrade of the protection and relaying system to ensure that the transmission network responds to certain technical (N-1) criteria. The support to the rehabilitation of distribution networks in key urban centers has been reduced to a strategic set of activities that can be achieved within the revised project duration taking into account the capacity of the implementing agencies. The installation of prepayment meters has been added to this component, while measures to enhance lighting and appliance efficiency remain the same.

15. *Sub-component A.1* - The project development objectives encompasses ensuring that Benin's transmission network responds to N-1 criteria. This objective cannot be fully achieved if the protection and the relaying system are not upgraded. The study phase was completed under the Energy Services Delivery Project (ESDP), and the Government requested that the implementation phase be included as part of the IAME project. Therefore, it is proposed that the supply and installation of protection and relaying equipment on Benin/Togo Generation and Transmission Power Company*'s* (CEB) network will be included in a new subcomponent, A.1(b), for a total value of US$1.41 million. The expected completion date for this activity is December 2014. The A.1 (a) activity description remains unchanged. However, the proposed allocation to sub-

component A1 is increased from US$ 11.9 million to US$ 13.23 million, based on signed contracts amounts.

16. *Sub-component A.4* - The distribution subcomponent aims to rehabilitate and reinforce the distribution network in five cities and localities in Benin. So far, US$4 million in equipment have been purchased (the contracts are signed and the advance payments have been made). The engineering studies and bid documents for the remaining activities have been completed. An additional US$10.4 million for the remaining supply and installation will be allocated to this sub-component in this restructuring. While US$5.8 million allocated to the supply and installation of a SCADA system under the original project will be cancelled, because this activity cannot be completed within the project period.

17. In order to improve SBEE's (the utility) cash flow, and satisfy pending connection demand of prepayment meters, the restructured project will finance the installation of 45,000 prepayment meters and connection equipment. The connection of the existing demand of meters (around 100,000) has become a top priority for the Government and the utility. Moreover, the improvement of the cash flow situation of Benin Distribution Power Utility (SBEE) will have a positive impact on the whole sector by reducing their arrears towards the bulk power supplier, CEB. The bidding document for these meters (estimated value of $10.9 million) is ready and is being reviewed by the Bank's Regional Procurement Manager. The procurement process is expected to be completed in February 2013 and an additional year will be necessary to ensure all meters are installed based on the team's assessment of the installation capacity of the SBEE (40,000 meters per year).

Component B: Electrification and Modern Energy Services (adjusted from US$ 12 million to US$ 3.3 million)

18. The subcomponent on the provision of electricity in rural areas will be substantially revised and scaled down, given slow implementation progress and lessons learned from project implementation to date.

19. *Sub-component B.1* – Under this sub-component this restructuring is proposing to: cancel the support to the rural electrification fund (US$8 million) and reduce and reorient support to the capacity building and preparatory activities to facilitate the rural electrification agency, ABERME, to adequately fulfill its functions (US$1.5 million cancelled). In the initial project design, the objective of the rural electrification was to increase access to electricity in rural areas by developing a sustainable institutional framework to support rural electrification. The operation provided support to the rural electrification agency (ABERME) and rural electrification fund. The fund is intended to be used to guarantee the investment loans of private concessionaires and local communities. However, the capacity of ABERME remains very weak and after two years of implementation, the agency has not been able to complete preparatory studies and pilot demonstration projects for private rural electrification concessions.

20. *Sub-component B.2a* – This sub-component will be scaled down from US$2 million to US$1.3 million because of the limited local cook stove manufacturing and testing capacity in Benin. In addition to the existing activities, this component will also finance the follow up activities of the pilot "crude Jatropha oil (CJO) production social enterprise project'' initiated by the Biomass Energy Initiative for Africa as required by the Government.

21. *Sub-component B.3* - At the Government's request, a new subcomponent B.3 will be added (US$1.5 million) to finance the electrification of three priority localities. DGE will be responsible for the implementation of this activity and the distribution assets will be transferred to SBEE for operation after construction.

Component C: Sustainable Energy Services (adjusted from US $ 6.68 million to US$ 4.6 million)

22. This restructured component will focus on key activities that have already begun and can be completed by the closing date. All the studies for which the terms of reference are not yet submitted by the client are dropped. Additionally, there are a number of critical studies that remain incomplete after the closure of the *Energy Services Delivery Project* which the government would like to finish with resources from this project. The studies which relate to business development, engineering, environmental and social studies are consistent with the project development objectives of this project and are expected to be completed by December 2013. Based on these modifications, it is proposed that the allocation to Component C be reduced from US$6.68 million to US$4.6 million.

Component D: Project Preparation (new component of US$ 5 million)

23. Aware that insufficient project preparation can delay project implementation, the government has indicated its need for additional support to prepare critical pipeline projects. The proposed new component D aims at advancing the preparation of new projects. In particular, sub-component D1 will support the preparation of the Adjarala Hydropower project, including financing (i) the update of the ESIA/RAP, (ii) the hiring of the panel of experts for the preparation phase, (iii) the audit of legacy safeguard issues of Nangbeto hydropower project, and (iv) the LIDAR from the Nangbeto reservoir to Mono river mouth. The estimated cost of the Adjarala preparation activities is US$3 million. Sub-component D2 will focus on the preparation studies of upcoming transmission and distribution projects. These studies include: (i) the technical and environmental studies of the 161 kV Transmission line from Natitingou to Porga, and (ii) the technical and environmental studies of the rehabilitation and extension of the distribution system. The total estimated cost of these studies is US$2 million.

24. The project costs table below reflects the proposed cost of each component after the restructuring. A detailed financing plan is set forth in Annex 2a and Annex 2b reflects cancellations and reallocations by subcomponent.

Project Costs (US$ million)				
Components/Activities	**Current[1]**	**Proposed**	**Cancellation**	**Reallocation**
A - Upgrading of the Electrical Network	43.32	41.6	16.36	14.64
B - Electrification & Modern Energy Services	12	3.3	10.2	1.5
C- Sustainable Energy Services	6.68	4.6	2.4	0.32
D- Project preparation		5		5
Contingencies	8	0	8	0
Total	**70**	**54.5**	**36.96**	**21.46**

- **Reallocation of credit proceeds**

25. Proceeds for the *Republic of Benin Increased Access to Modern Energy Project* (Credit No. 4587-BJ) will be reallocated as follows:

Category of Expenditure		**Allocation (SDR)**		**% of Financing**	
Current	Revised	Current	Revised	Current	Revised
(1) Goods, Works, Consultant Services and Operating Costs for Parts, B.2a, C.3, C.4 and C.5 of the project.		4,600,000	0	100%	
(2) Goods, Works, Consultant Services and Operating Costs for Parts, A.1 of the project.	(2) Goods, Works, Consultant Services and Operating Costs for Parts, A.1a of the project.	7,500,000	9,310,593	35%	35%
(3) Goods, Works, Consultant Services and Operating Costs for Parts, A.3 and C.1 of the project.		1, 350,000	0	100%	

[1] If the project has had a previous restructuring, the current should reflect the latest approved costs.

(4) Goods, Works, Consultant Services and Operating Costs for Parts, A.4 and C.2 of the project.		22,000,000	0	100%	
(5) Goods, Works, Consultant Services and Operating Costs for Parts, B1.a of the project		1,350,000	0	100%	
(6) Goods, Works, Consultant Services and Operating Costs for Parts, B1.b of the project		5,500,000	0	100%	
(7) Unallocated		5,200,000	0		
	(8) Goods, Works, Consultant Services and Operating Costs for Parts, A.1b,A3,A4, B.1,B.2a, B3,C1, C2,C.3,C4, C.5, D1,D2 of the project	0	27,988,079		100%
Total amount		**47,500,000**	**37,298,672**		

1. **Results/indicators**

26. The project development objective is to improve reliability, efficiency and access to modem energy services in Benin. This project development objective remains unchanged and relevant. The results framework has been revised to better align achievements with project objectives and reflect changes in some of the activities. The revised results framework is set out at Annex 1.

27. The rural electrification indicators B.1 and B.2 (Expanded decentralized, stand-alone generation systems) have been dropped to reflect the change in strategy of the project's support to rural electrification. A new indicator A.3 has been inserted to measure the impact of the acquisition of prepayment meters. A3 is described as follows "*Number of people provided with access to electricity under the project by household connections through prepayment meters."* The existing B.2 indicator is changed to reflect the impact of the electrification of new localities and described as follows *'' Number of people provided with access to electricity under the project by household connections through the electrification of new localities''.* The results framework has been modified to include indicators related to the new component D.

- **Implementation arrangements**

28. The project originally had four implementing agencies: the DGE, SBEE, CEB, and ABERME. Despite training and capacity building activities for staff, ABERME and SBEE have demonstrated deficiencies in handling Bank fiduciary activities which has contributed significantly to the implementation delays under the project. The DGE and CEB have a good track record of effectively managing Bank projects. With the ESDP now closed, the personnel employed by DGE to implement the ESDP are available. In order to improve the project management, this restructuring is proposing to have DGE take over fiduciary management from SBEE and ABERME, effectively reducing the number of implementation agencies to two (DGE and CEB). For activities related to the distribution component, DGE will benefit from the technical assistance of SBEE and the contracted engineering firm. DGE's procurement capacity is being strengthened by the recruitment of a second procurement specialist which is underway.

29. DGE will be the implementing agency for sub-components A4, A5, B, C2, , C4, C5, and part of D2 of the restructured project. CEB will be the implementing agency for sub-components A1, A3, C1, D1and part of D2 of the restructured project.

- **Disbursement arrangements**

30. ABERME's Designated Account opened at the Central Bank (BCEAO) will be transferred to DGE.

2. **Procurement**

31. DGE will be responsible of procurement for activities being carried out by ABERME and SBEE. However, ABERME and SBEE will provide technical inputs to DGE during the bidding process. The procurement plan is updated to include modifications resulting from this restructuring. CEB will continue to be responsible for procurement for its original components and a part of Component D.

- **Closing date**

32. The bidding process and the construction time of the distribution component is estimated to exceed the current closing date by one year. Therefore, an extension of the closing date from June 30, 2015 to June 30, 2016 is proposed.

33. The team confirms that: (i) the project objectives continue to be achievable; (ii) with the implementation of the restructuring, the implementation performance of the Recipient is expected to improve to satisfactory; (iii) the team has received an updated procurement plan that shows that the project can be completed within the revised closing date; and (iv) there are no outstanding audit reports.

- **Changes required in the legal documents**

34. An Amendment letter will be prepared based on the proposed restructuring reflecting the corresponding changes to the Financing and Project Agreements, including:

a. Section 2.01 of Article 2 of the Financing Agreement will include the new total amount of the loan is SDR 36,497,000 (after cancellation) and remaining project components, Parts A.1, A.3, A.4, B.1, B3, C and D.
b. Section 3.01 of Article 3 of the Financing Agreement will reflect which implementing agency DGE or CEB will be responsible for implementing which component.
c. Schedule 1 of the Financing Agreement will reflect the revisions to the project description, including adding and cancellation of activities, per paragraphs 13-21 above.
d. Schedule 2 of the Financing Agreement will reflect any corresponding changes to the operations manual and scope of the subsidiary agreements brought about by the restructuring.
e. Schedule 2 of the Financing Agreement will reflect the revised closing date.
f. All reference to ABERME and SBEE as implementing agencies will be removed from both Agreements.
g. A table reflecting the revised categories of disbursements and corresponding amounts.

D. APPRAISAL SUMMARY

35. The project as originally designed had a strong economic rate of return of about 20%. The changes proposed through this restructuring will even increase this healthy rate of return. Indeed, the main change is that part of component A.4 is cancelled and replaced by the acquisition of prepayment meters for US$ 10.9 million. Prepayment meters, by increasing collection, have high economic and financial returns.[2] This will also positively affect the financial situation of SBEE (and CEB) by sustainably increasing their revenues and cash flows.
36. The table below shows the original and current economic rate of return. For the distribution rehabilitation component, the rate of return increases from 16% to 26%. The net present value is now US$5.6 million.

Components	EIRR (original)	EIRR (revised)	Comment
Transmission lines (A1, A2, A3)	22%	22%	Unchanged
Distribution rehabilitation (A4)	16%	26%	Introduction of prepayment meters
Energy efficiency (A5)	53%	53%	Unchanged

[2] Restoring payment discipline for electricity supply will result in a transfer of revenue from users to SBEE. The customers that are not paying for electricity usually use it inefficiently given the limited incentives to conserve. The economic analysis assumes conservatively that out of the total extra revenue collected, 75% would consist of a pure financial transfer from existing consumers to SBEE, and 25% would correspond to more efficient use of energy (freeing supply for users which would not have been served otherwise).The increase in SBEE revenues is higher from the financial perspective.

ANNEX 1:
Results Framework and Monitoring

	Project Development Objective (PDO): The project's objectives are to improve reliability and efficiency of, and access to, modern energy services in Benin.
	Revised Project Development Objective: [unchanged]

PDO Level Results Indicators*	Core	D=Dropped C=Continue N= New R=Revised	Unit of Measure	Baseline	Cumulative Target Values**						Frequency	Data Source/ Methodology	Responsibility for Data Collection
					YR 1	YR 2	YR 3	YR4	YR5	YR6			
PI. Power losses in Benin's transmission networks (in GWh)	☐	R	percentage	51	51	51	51	24	24	24	Biannually	Through CEB's existing channels of data collection.	CEB
P2. People provided with access to electricity under the project by household connections	☒	R	number	0	0	0	0	150,000	200,000	200,000	Annually	Through data collection by ABERME and MoE	ABERME, MoE
P3. Benin transmission network responds to (N-1) criteria	☐	R		No	No	No	No	Yes	Yes	Yes	Annually	Through CEB's existing channels of data collection	CEB
P4. Direct project beneficiaries, of which female		N	number percentage									Through data collection by ABERME and MoE	ABERME, MoE
					INTERMEDIATE RESULTS								
Component A: Electrical Network Upgrading													
Al. Transmission lines constructed under the project (Km)	☒	C	kilometers	0	0	0	0	150	310	310	Annually	CEB	CEB

A2. Distribution-level voltage fluctuations less than 7 percent in the project's network area in key cities in Benin	☐	R	Yes/No	No	No	No	No	No	Yes	Yes	Annually	Through SBEE's existing channels of data collection	SBEE
A5. *People provided with access to electricity under the project by household connections through prepayment meters*	☐	N	number	0	0	0	0	150,000	225,000		Annually	Through SBEE's existing channels of data collection	SBEE
A3. Reduction of Benin's peak load and energy savings (in MW/GWh)	☐	R	MW/GWh	0	0	0	0	9.7/14	9.7/14	9.7/14	Annually	Data collection by DGE and SBEE	DGE
A5. Lighting efficiency standards developed and applied	☐	R	text	No Standard	No Standard	No Standard	No Standard	No Standard	Standard for at least 2 appliances	Standard for at least 2 appliances	Annually	Information collected by DGE	DGE
Component B: Electrification and Modern Energy Services													
B1. Rural electrification fund (REF) established and fully operational	☐	**D**											
B2. *Number of people provided with access to electricity under the project by household connections number of people provided with access to electricity under the project by household connections through the electrification of new localites*	☐	**N**						300	500			Through SBEE's existing channels of data collection	
B3. Area (hectares) of managed forest in the context of setting up a community-based sustainable wood fuel supply system (in ha)	☐	**R**		**0**	**0**	**0**	0	50, 000	150,000	300,000	Annually	Date collected by AFIC for DGE	DGE
B4. Number of new workers trained in production of efficient wood stoves, and increased use of energy efficient wood stoves.	☐	**R**		**0**	**0**	**0**	0	150	300	450	Annually	Data collected by AFIC for DGE	DGE

													DGE
													DGE
Component C: Sustainable Energy Services													
Cl. Energy Sector Master Plan completed and endorsed by the Government	☐	R		**No**	**No**	**No Current**	**No**	**Yes**	**Yes**	**Yes**	Once	Information collected by DGE	DGE
C2. SBEE business plan developed and endorsed by SBEE's management	☐	R		**No**	**No**	**No**	**No**	**yes**	**yes**	**yes**	Once	Information collected by SBEE	CEB
C3. CEB business plan developed and endorsed by CEB's management	☐	R		**No**	**No**	**No Business Plan**	**No**	**Yes**	**Yes**	**Yes**	Once	Information collected by CEB	CEB
C4. Environmental and social safeguards regularly monitored and mitigation measures implemented		R		**No**	**Yes**	**Yes**	Yes	Yes	Yes	Yes			DGE/ ABE
Component D: Project Preparation													
Dl. Adjarala ESIA and RAP updated	☐	N		**No**	**No**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	Once	Information collected by CEB	CEB
D2. Preparation studies for transmission and distribution project completed	☐	N		**No**	**No**	**No**	**No**	**No**	**Yes**	**Yes**	Once	Information collected by CEB and SBEE	CEB / SBEE

ANNEX 2a: Revised Project Cost (millions of US$)

	Project Component	Project cost			Implementing Agency	Financing Plan								
		Local	Foreign	Cost		GoB	CEB	SBEE	IDA	GEF	ESMAP	KfW	EIB	FFEM
A - Upgrading of the Electrical Network														
A-1a	Construction of the Onigbolo/Parakou Interconnection	**11.14**	**29.05**	**40.20**	CEB									
	Supply and Installation of Substations Extention & Compensation Equipment (Parakou & Onigbolo)	0.54	2.14	2.68									2.68	
	Supply and Intallation of 280 km 161 kV Double Circuit Line	6.73	26.91	33.64					13.23				20.41	
	Implementation of the RAP and EMP	3.88	0.00	3.88			3.88							
A1-b	Supply and Installation of protecion and Relaying Equipement	0.28	1.12	1.40					1.40					
A-2	Construction of 161 kV Sakete Porto Novo Interconnection	**8.11**	**14.96**	**23.07**	CEB									
	Supply and Installation of Substations & Compensation Equipment.	1.03	4.10	5.13								5.13		
	Supply and Intallation of 30 km 161 kV Double Circuit Line and 63 kV Underground Cable	2.71	10.86	13.57								13.57		
	Implementation of the RAP and EMP	4.37	0.00	4.37			4.37							
A-3	Construction Supervision for A-1 & A-2	0.50	0.50	1.00	CEB				1.10					
A-4	Reinforcement and Extension of the Distribution System	3.18	12.72	15.90	DGE			1.50	14.40					
	Acquisition of metering and connection equipments				DGE				10.90					
	Construction Supervision for Reinforcement and Extension of the Distribution System	0.60	0.60	1.20	DGE				0.57					
A-5	System and Appliances Efficiency	0.35	3.12	3.47	DGE	1.65				1.82				
	Subtotal Component A	**23.88**	**60.96**	**84.84**		**1.65**	**8.25**	**1.50**	**41.60**	**1.82**		**18.70**	**23.09**	
B - Electrification & Modern Energy Services														
B-1.a	Planning & Development of Modern Energy Services for Rural Areas	1.00	1.00	2.00	DGE				0.50					
B-1.b	Rural Electrification grid expansion	17.40	40.60	0.00	DGE									
B-2	Modernizing Biomass Energy Services	2.40	2.40	4.80	DGE	0.20			1.30		2.00			1.30
B-3	Electrification of new localities	0.50	1.00	1.50	DGE				1.50					
	Subtotal Composante B	**20.80**	**44.00**	**6.80**		**0.20**			**3.30**		**2.00**			**1.30**
C- Sustainable Energy Services														
C-1	CEB: Business Development, Engineering, Environmental and Social Studies	0.02	0.08	0.10	CEB				0.10					
C-2	SBEE: Business Development, Engineering, Environmental and Social Studies	0.14	0.56	0.70	DGE				0.70					
C-3	Enhancing the Regulatory Capacity	0.00	0.00	0.00	DGE				0.00					
C-4	Energy Sector Studies & Projects Management	0.56	2.24	2.80	DGE				2.80					
C-5	DGE: Development of an Environmental & Social Framework Policy for the Sector and Environmental studies	0.20	0.80	1.00	DGE				1.00					
	Subtotal Component C	**0.92**	**3.68**	**4.60**					**4.60**					
D- Project Preparation														
D-1	Preparation of Adjarala HPP	0.60	2.40	3.00	CEB				3.00					
D-2	Preparation of transmission and distribution project	0.40	1.60	2.00	CEB/DGE				2.00					
	Subtotal Component D	**1.00**	**4.00**	**5.00**					**5.00**					
	TOTAL	**46.60**	**112.64**	**101.24**		**1.85**	**8.25**	**1.50**	**54.50**	**1.82**	**2.00**	**18.70**	**23.09**	**1.30**

ANNEX 2b: Cancellations/Reallocations

	Project Component	IDA (original)	IDA (revised)	Cancellation /Reallocation
A - Upgrading of the Electrical Network				
A-1a	Construction of the Onigbolo/Parakou Interconnection			
	Supply and Installation of Substations Extention & Compensation Equipment (Parakou & Onigbolo)			
	Supply and Intallation of 280 km 161 kV Double Circuit Line	10.99	13.23	2.24
	Implementation of the RAP and EMP			
A1-b	Supply and Installation of protecion and Relaying Equipement		1.40	1.40
A-2	Construction of 161 kV Sakete Porto Novo Interconnection			
	Supply and Installation of Substations & Compensation Equipment.			
	Supply and Intallation of 30 km 161 kV Double Circuit Line and 63 kV Underground Cable			
	Implementation of the RAP and EMP			
A-3	Construction Supervision for A-1 & A-2	1.00	1.10	0.10
A-4	Reinforcement and Extension of the Distribution System	30.13	14.40	-15.73
	Acquisition of metering and connection equipments		10.90	10.90
	Construction Supervision for Reinforcement and Extension of the Distribution System	1.20	0.57	-0.63
A-5	System and Appliances Efficiency			
Subtotal Component A		**43.32**	**41.60**	-1.72
B - Electrification & Modern Energy Services				
B-1.a	Planning & Development of Modern Energy Services for Rural Areas	2.00	0.50	-1.50
B-1.b	Rural Electrification grid expansion	8.00		-8.00
B-2	Modernizing Biomass Energy Services	2.00	1.30	-0.70
B-3	Electrification of new localities		1.50	
	Subtotal Composante B	**12.00**	**3.30**	-8.70
C- Sustainable Energy Services				
C-1	CEB: Business Development, Engineering, Environmental and Social Studies	1.00	0.10	-0.90
C-2	SBEE: Business Development, Engineering, Environmental and Social Studies	1.00	0.70	-0.30
C-3	Enhancing the Regulatory Capacity	0.80	0.00	-0.80
C-4	Energy Sector Studies & Projects Management	3.20	2.80	-0.40
C-5	DGE: Development of an Environmental & Social Framework Policy for the Sector and Environmental studies	0.68	1.00	0.32
	Subtotal Component C	**6.68**	**4.60**	-2.08
Contingencies		8.00	0.00	-8.00
D- Project Preparation				
D-1	Preparation of Adjarala HPP	**0.00**	3.00	3.00
D-2	Preparation of transmission and distribution project	**0.00**	2.00	2.00
	Subtotal Component D		**5.00**	5.00
	Contingencies			
	TOTAL	**70.00**	**54.50**	-15.50

ANNEX 3: Action plan/contracts implementation schedule

Component	Activities / Contracts	Estimated Amount / Contract amount (Million US$)	Estimated completion date
Component A: Upgrading of the Electrical Network	Supply and Installation of 280 km 161 kV Double Circuit Line	12.44	Nov 2014
	Supply and Installation of protection and Relaying Equipment	1.41	Dec 2014
	Reinforcement and Extension of the Distribution System	14	Mar 2016
	Acquisition of metering and connection equipment	8.9	Dec 2015
Component B: Electrification & Modern Energy Services	Modernizing Biomass Energy Services	1.7	Apr. 2016
Component C:	CEB Technical assistance	0.1	Oct. 2014
	SBEE Technical assistance	0.7	Oct. 2014
	Generation transmission and distribution master plan	0.8	Dec. 2014
	Environmental audit of SBEE AND Environmental and social framework for the sector	0.5	Jun. 2014
Component D:	Preparation of Adjarala Hydropower project	2	Mar. 2014
	Preparation of transmission and distribution project	2	Mar. 2015