



1. Project Data

Project ID

P104456

Project Name

CM-Energy Sector Development SIL (FY08)

Country

Cameroon

Practice Area(Lead)

Energy & Extractives

L/C/TF Number(s)

IDA-44840

Closing Date (Original)

31-Dec-2013

Total Project Cost (USD)

50,000,000.00

Bank Approval Date

24-Jun-2008

Closing Date (Actual)

30-Apr-2017

IBRD/IDA (USD)
Grants (USD)

Original Commitment

65,000,000.00

0.00

Revised Commitment

44,878,628.00

0.00

Actual

33,714,793.46

0.00

Prepared by

Dileep M. Wagle

Reviewed by
J. W. van Holst
Pellekaan
ICR Review Coordinator

Christopher David Nelson

Group

IEGSD (Unit 4)

2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO), as cited on page 5 of the Financing Agreement, was to "contribute to the realization of the Recipients growth and poverty reduction strategy". This objective was not, however consistent with the definition of the PDO in the Project Appraisal Document (PAD) which made no mention of a growth and poverty reduction strategy (paragraph 25).

The Financing Agreement stated that the PDO was to be achieved by "increasing access to modern energy in rural areas" and by "increasing the reliability of electricity supply through improved management of sector resources"



In accordance with OPCS policy and IEG Guidelines the PDO in the Financing Agreement will be used in this Review as the basis for assessing whether the project achieved its objectives.

The project's PDO was not changed during implementation but there were material formal amendments to the project's key performance indicators such that the level of ambition of the project's objectives changed significantly, justifying a split evaluation of the project's outcome.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

No

c. Will a split evaluation be undertaken?

Yes

d. Components

Component 1: Rural Energy Fund [estimated cost at appraisal: US\$45 million, actual cost US\$28.5 million]. This component was to set up a rural energy fund (REF), managed by the rural electrification agency, AER (*Agence d'Electrification Rurale*), to streamline interventions and increase effectiveness of investments in rural energy. The Fund would subsidize investments up to 70 percent of total investment costs, initially through provision of grants, followed (in a subsequent phase) by guarantees for all or part of the loans contracted by rural energy providers, and to encourage the banking sector to lend for rural energy projects. A Rural Electrification Planning & Programming Committee (REPPC) was to be created, where all institutions engaged in rural electrification would meet bi-annually, to agree on a yearly investment program of rural electrification, on the basis of an updated Master Plan to be prepared by the Ministry of Energy & Water (MINEE) in collaboration with all stakeholders. As per the electricity law, the sector regulator ARSEL (*Agence de Regulation de Secteur d'Electricite*) would be responsible for selecting the private operator for projects based on a competitive bidding process.

The project's restructuring in early 2013 revised the rural electrification model and consequently changed this component. In the new component, labeled 'Rural Electrification', three rural electrification schemes would be financed by the Project in the North-West, West, and Northern provinces, and were expected to electrify approximately 25,000 households, instead of the 50,000 envisaged under the original component. AER had the responsibility for the detailed planning of the electrification schemes, compilation of bidding documents and technical supervision of construction, supported by a consulting engineering firm to help develop designs and specifications, supervise the works and manage the handover to AES-SONEL (the private electricity concessionaire). Though the project would fully finance the state-owned distribution assets, the support would no longer be channeled through the Rural Electrification Fund (Restructuring Paper, December 26, 2012, para 8).

Mini-grid activities would no longer be financed by the project. The original design, which had been based on an investor-driven approach in which the private sector would propose investment schemes to local



governments, had not been overly successful. Only two proposals - for fairly complex mini-grid systems, that would necessitate further feasibility/design studies - had been submitted by the time of restructuring, and these could not have been implemented within the time span of the project. There was hence a perceived need for upfront feasibility studies and viability assessments of business models, to better inform interested private sector investors (Restructuring Paper, 2012, para 10).

Component 2: Capacity Building: [estimated appraisal cost US\$15.6 million, actual cost: US\$7.0 million]. The project would provide technical assistance (US\$6 million) to MINEE to help improve the planning of least cost investments, finalize the legal and Institutional framework of the energy sector, improve communications, and provide for complementary studies and equipment. It would also provide (a) US\$3.6 million of training and equipment to the Electricity Development Corporation (EDC), to develop tools for water basin management and for feasibility studies for future hydroelectric projects; (b) US\$4 million to ARSEL (*Agence de Regulation du Secteur d'Electricite*) for technical assistance and training to improve regulatory governance, concession oversight and consumer protection, and (c) US\$2 million to AER to help implement the REF and promote rural energy expansion and energy efficiency.

This component was also changed during the 2013 restructuring. Nevertheless, the component's objective continued to be to improve the planning and management of sector resources by all energy sector institutions. The component was however scaled back and focused on key sector planning studies and on supporting the reform process and development of the legislative framework. There were three sub-components: (i) technical assistance for the sector reforms following the newly adopted Energy Law, (ii) technical assistance for sector planning, and (iii) capacity building for sector agencies. Activities supported included updating the electricity master plan 2030 and the rural electrification master plan; technical assistance to help develop secondary legislation associated with the 2011 electricity law; and a functional review of sector regulations (Restructuring Paper, 2012, para 11).

Component 3: Project Preparation, including LPHP preparation [estimated cost at appraisal: US\$9.4 million, actual cost: US\$14.5 million]. This component was intended to assist EDC with the preparation of the Lom Pangar Hydropower Project (LPHP) and AER with the preparation of rural energy projects. EDC had plans to set up a Special Purpose Vehicle (SPV) for development and management of the LPHP, which would be fully owned by EDC. A Project Coordination Unit (PCU) was established, consisting of all project stakeholders, and EDC would appoint a project director for LPHP. The IDA credit supported the team of technical experts by financing an independent engineering firm to facilitate and oversee preparation of LPHP. This component would also finance technical, environmental and social studies, and the preparation of bidding documents, in addition to the financing of an independent panel of environmental, social and dam safety experts.

When the project was restructured in early 2013, the scope of this component was broadened to include goods and services related to Project Management. The increase in the component budget allowed for financing for just-in-time support to start-up activities associated with LPHP, a pre-feasibility study of a future hydropower site, and the cost of the owners engineer for dam construction until effectiveness of other donor financing (Restructuring Paper, 2012, para 12).



e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: Total project cost at appraisal was estimated at US\$70 million. Actual total cost was reduced to US\$44.88 million as a result of four Level II restructurings, partly described earlier and elaborated further below.

Financing: IDA Credit agreed at appraisal for this project was US\$65 million, complemented by US\$5 million of borrower contribution. US\$15 million were cancelled in February 2013 and a further US\$5.12 million were cancelled in 2017.

Borrower Contribution: The Government's proposed contribution at appraisal was US\$5 million, but this was cancelled at the time of the 2013 restructuring.

Dates and Restructuring: The project was originally envisaged to close on December 31, 2013. This date was extended to December 31, 2015 at the time of the 2013 restructuring. The restructuring in October 2015 resulted in this date being further extended to January 31, 2017. The final restructuring in January 2017 resulted in another extension of the closing date by three months, to April 30, 2017, resulting in a cumulative extension of 40 months. The restructuring also resulted in changes in the project's components and significant changes in key project indicators.

3. Relevance of Objectives & Design

a. Relevance of Objectives

The project's development objective of contributing to the country's growth and poverty reduction strategy was consistent with the Government's priorities, as outlined in the "Cameroun - Vision 2035" document (February 2009). To accomplish this, the Government placed high priority on development of the country's energy infrastructure, especially in realizing the potential of its hydroelectric sector (page 39). Lack of access to electricity in the country has acted as a constraint to the development of commercial and industrial enterprises, impacting the goal of eradicating poverty and improving social services. The provision of electricity was therefore a critical element in the country's potential growth and socio-economic transformation. Towards this end, the Lom Pangar dam, fully impounded in 2016 and based on feasibility studies financed through the project, would contribute to increasing the all-season hydropower capacity on the Sanaga River by some 40 percent. The Lom Pangar dam would also encourage development of further downstream large-scale hydroelectric plants, by ensuring all-season water flows, and thereby increase the reliability of the whole energy generation and distribution system.

The project's objectives were also consistent with the Bank Group's Country Partnership Framework (CPF) for Cameroon for FY17-21, which included the fostering of infrastructure and private sector development, and in particular of increasing the national availability of electricity, as an important priority. Under this head, the Bank Group proposed to help increase the availability of electricity in the country, through a mix of advisory services, financing of public investment and support to private investment in the sector.

The project's objectives did not change during any of the four restructurings. These objectives were highly



relevant to Government and Bank strategies before and after various restructurings. The PDO was, however, at a much higher level than the project could aspire to and also not measured by any of the PDO indicators. Nevertheless, the Financing Agreement clarifies that the PDO would be realized by "increasing access to modern energy in rural areas and by increasing the reliability of electricity supply through improved management of sector resources", which were measurable outcomes and plausible indicators of the extent to which growth and poverty reduction were realized. On this basis, the relevance of objectives is rated Substantial before and after restructuring.

Rating

Substantial

Revised Rating

Substantial

b. Relevance of Design

The original design of the project was broadly consistent with its objectives. However, the causal chain was based on assumptions that proved to be optimistic. For the key Rural Electrification Component, the assumption that a private sector-based model, with a newly established Rural Energy Fund (REF) providing investment subsidies to private sector operators, would be able to attract significant private sector co-financing (ICR, page 22), turned out to be faulty. In practice, the appetite of the private sector for investing in this sector at the current level of consumer tariffs, and in the absence of an adequate regulatory environment - appeared to have been overestimated. The project succeeded in attracting only two proposals in three years for complex mini-grid systems which would require significant further feasibility and design studies. As a result, the project's basic design had to be substantially altered at restructuring in 2013 in favor of a more traditional public sector-based approach, whereby AER would be responsible for expanding the electricity distribution network and connections to households, which would then be transferred to the utility for operation and maintenance.

The Capacity Building Component similarly proved to be overly ambitious (ICR, page 14) in the context of ARSEL's and MINEEs ability to execute their mandates, and had to be substantially scaled back during the 2013 restructuring. The original results framework was well aligned to the projects objectives, linking inputs and outputs to outcomes; however, once the project was restructured, it too underwent major changes.

The revised design (post-2013 restructuring) did address some of the deficiencies of the original design, though not completely. Weaknesses in implementation capacity had not been taken sufficiently into account, and these caused significant delays for the operation, resulting in an overall extension of the closing date by more than four years for a total implementation period of nearly nine years. The key Rural Electrification Component saw a cancellation of one of the three grid extension contracts introduced after the restructuring in 2013 and could not be completed as planned; as a result of which there had to be a substantive scaling back of outcome targets in the results framework. The only activity that appeared to have been well-designed was the assistance provided to conduct environmental and preparation studies for Lom Pangar hydro project, which were relevant to the long-term success of that project (in turn relevant to a long-term improvement in reliability of the power sector in Cameroon). These activities were completed by the project's close. In summary, the relevance of design of the project was Modest before and Substantial after the various restructurings.



Rating
Modest

Revised Rating
Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

“Increasing access to modern energy in targeted rural areas”

Introductory Note: This project's development objective (PDO) was “to contribute to the realization of the Recipient's (Government's) growth and poverty reduction strategy.” The PDO was to be achieved by two sub-objectives namely (i) “increasing access to modern energy in rural areas” and (ii) “increasing the reliability of electricity supply through improved management of sector resources”. The project did not explicitly address the growth and poverty reduction goals in the PDO. Moreover, there were no indicators that measured the achievement of the PDO directly, rather the key performance indicators measured either the achievement of increased access to electricity by project beneficiaries, the increased number of new household connections in electrified towns and villages, or the improved access to modern energy in rural areas through a Rural Electrification Master Plan. Most of the original relevant indicators of energy access were dropped at the various restructurings thereby reducing the level of ambition of the project

For the purpose of assessing whether the PDO was achieved this Review will (similar to the approach used in the ICR) assess the extent to which the project led to “increasing access to modern energy in rural areas” (referred to in this Review as Objective 1) and the extent to which the project led to “increasing the reliability of electricity supply through improved management of sector resources” (referred to in this Review as Objective 2) before and after the major restructuring in 2013 and the less significant restructurings that followed.

Information regarding the project's efficacy has been drawn from the ICR in paragraphs 78 to 87 and Annex 2.

Rationale

Achievement of Sub-Objective 1 during the period from effectiveness until the first and major restructuring in 2013 was limited. No funds were disbursed from the Rural Energy Fund, and consequently none of the original project's PDO indicators were achieved. Of the 15.6 percent of project funds that were disbursed, the bulk (over 63 percent) went to the Project Preparation & Management component, with a little over 16 percent being accounted for by the Capacity Building component. Achievement of the key indicator for this objective - number of electrified villages (grid and off-grid) - was zero, as no rural electrification schemes promoted by the private sector were implemented, and this indicator was dropped at restructuring. There were virtually no achievements in terms of this objective before restructuring in 2013.



The efficacy of this objective was therefore rated Negligible and it made no contribution to the Government's growth and poverty reduction strategy.

Rating
Negligible

Objective 1 Revision 1

Revised Objective

"Increasing access to modern energy in targeted rural areas of Cameroon"

Revised Rationale

In 2013, when the project was restructured the PDO and Sub-Objective 1 remained unchanged, but project activities and results indicators underwent significant changes leading to a considerable change in the project's level of ambition. There is evidence in the ICR that increased access to electricity in targeted rural areas was partially achieved. This achievement followed the replacement of the original Rural Energy Fund by 'Rural Electrification' as Component 1 which introduced a more traditional public sector financing approach whereby the component would finance three rural electrification schemes that were expected to electrify about 25,000 households (reduced from the 50,000 expected originally). Substantial progress was made in the implementation of two of the three schemes, despite some initial delays in initiation of works. However, the third scheme (in the North West region) experienced major delays in implementation, as a result of which it was eventually cancelled.

Achievement of new household connections in electrified villages fell way short of the target (which in turn was further reduced to 10,000, in another restructuring in January 2017), only four months before the projects closing date. On the plus side, it might be noted that by successfully extending transmission and distribution lines in two regions of the country, the project increased the number of connections there and managed to put in place the backbone for further connections in future years.

Nevertheless, based on the considerable shortfall in the project's achievement of rural electrification compared with the revised target established at the 2013 restructuring, the efficacy of this sub-objective is rated modest. It did not contribute to the Government's growth and poverty reduction strategy.

Revised Rating
Modest

Objective 2

Objective

"Improving Planning and Management of Sector Resources by all sector institutions"



Rationale

Under the original Component 1, before the 2013 restructuring, initial steps were taken towards establishing the framework for improved planning and management of energy sector resources, through setting up key agencies and the establishment of the Rural Electrification Fund itself, which - as already noted - failed to disburse. The agencies included the Rural Electrification Agency (AER) and a Rural Electrification Planning and Programming Committee, created to coordinate sector planning and approve rural electrification investment programs. Under Component 2, the regulatory agency (ARSEL) made limited progress in monitoring and audit concession performance, and a revised regulatory model was still not implemented as a basis for tariff determination. Component 3 activities led to better results, with the preparation and environmental studies for the Lom Pangar hydropower project being completed and with AER having made good progress in preparation of on-grid electrification schemes. There were, however, few achievements towards this objective before restructuring.

The efficacy of this sub-objective is therefore rated Modest, and it made only a modest contribution to the Government's growth and poverty reduction strategy.

Rating

Modest

Objective 2 Revision 1

Revised Objective

"Improving Planning and Management of Sector Resources by all sector institutions"

Revised Rationale

Following the 2013 and subsequent project restructurings, neither the PDO nor Sub-Objective 2 changed. On the other hand capacity building and technical assistance activities under Component 2 of the project were streamlined considerably. Most of the key intermediate outcomes anticipated were achieved by 2016, on schedule, including: (a) the development of the rural electrification Master Plan, (b) approval of the rural electrification financing plan, (c) adoption of a long term development plan for the energy sector, (d) a functional review of electricity sector regulations and the tendering of the three electrification schemes.

Also, under Component 3, preparatory activities involving the Lom Pangar hydropower project (LPHP), including social and environmental studies, were completed on time. The LPHP was subsequently approved by the Bank for financing, and was expected to contribute to the long-term reliability of the electricity supply in Cameroon. To this extent, the sub-objective of improving the planning and management of sector resources after restructuring was substantially achieved.

This sub-objective therefore contributed substantially to the realization of the Government's growth and poverty reduction strategy.

Revised Rating



Substantial

5. Efficiency

Administrative and Operational Efficiency:

The project's efficiency was impacted negatively by the delays that occurred in implementation in initial years, which were due to inadequate design and led to the restructuring of 2013 and the adoption of a new implementation approach and the need to scale back the scope of the project. The initial design of the project was characterized by a lack of accountability and clear overview functions, especially regarding the main rural electrification component, which resulted in limited progress in the implementation of Components 1 and 2 (ICR, paragraph 48). Though the pace of implementation did improve in subsequent years, the project's closing date had to be extended two more times in order to ensure completion of works. As such, from approval to the closing date of the original phase in 2013, the project was modestly efficient. Even after the 2013 restructuring, the ICR identified AERs weak procurement capacity, a lack of coordination between agencies responsible for procurement, and an absence of standardized bidding documents as reasons for continued procurement delays for Component 1 (paragraph 57). These factors contributed to the eventual cancellation of the contract for grid extension in the North-West region. For these reasons, administrative and operational efficiency remained modest through most of this period.

Economic Efficiency:

Economic analysis of the project's efforts to increase access to electricity in rural areas (Component 1) indicated an economic internal rate of return (EIRR) of 15 percent, a Net Present Value of US\$1.06 million at a 12 percent discount rate, and a benefit/cost ratio of 1.06 (ICR, paragraph 91). According to the ICR (paragraph 89) these estimates took account the project's investments in grid connections and assumed benefits flowed from the availability of electricity to households allowing for income-generating activities after dark and access to radio and television, reduction of indoor pollution and access to refrigeration (allowing for better food conservation). No comparable results could be estimated for the project at appraisal, as specific rural energy projects had yet to be identified. The financial efficiency with benefits (based on sales) which arguably do not reflect the social benefits of access to electricity, was very low as indicated by a Net Financial Present Value of -\$8.18 million (ICR, paragraph 93).

Cost Effectiveness

Average connection costs per household (most of which were connected in 2017) were relatively high: US\$1,344 compared to regional benchmarks such as US\$525 per household in Burkina Faso, for a similar program, though values of the order of US\$1,000 per household are not uncommon. To some extent, the high cost in this project reflected the implementation delays that occurred, which constrained the number of households connected (which could otherwise have lowered the average cost). The cost also reflected the fact that the project ended up financing more grid backbone investments than originally planned, and not only the last mile for access (ICR, paragraph 92).

Overall this Review rates the project's efficiency before and after restructuring as modest.



Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	15.00	65.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The relevance of the project's objectives was rated Substantial at inception and continued to be so, while its relevance of design was rated Modest before restructuring and Substantial, after. Achievement of project objectives is rated Negligible and Modest respectively, for sub-objectives 1 and 2 prior to the 2013 restructuring, and Modest and Substantial respectively for the post-2013 period (including all subsequent restructurings). Project efficiency is rated Modest, overall. Based on these ratings, before and after the 2013 restructuring the project's outcome before the restructuring was Unsatisfactory (rating of 2, on a six-point scale) and Moderately Satisfactory (rating of 4) after the 2013 restructuring. The proportion of funds disbursed before and after the 2013 restructuring was 36% and 64% respectively. The sum of the average outcome ratings weighted by the disbursements, was $0.72 + 2.56 = 3.28$. This translates into an overall outcome rating of Moderately Unsatisfactory.

a. Outcome Rating

Moderately Unsatisfactory

7. Rationale for Risk to Development Outcome Rating

The risk to the sustainability of development outcomes from the project is assessed as Modest. According to the ICR the project's achievements in extending the grid to new towns and villages in regions to the North and West of the country, and in connecting new customers, are unlikely to be reversed in the foreseeable future. The project has also provided a learning experience to the Government on the issue of private sector engagement in rural electrification, as well as on the strengthening of regulations and on the capacity of EDC to prepare for and manage hydro projects. Uncertainties however remain with regard to the financial sustainability of AER, the rural electrification agency, which depends to a large extent on donor support (paragraph 104).



Key challenges going forward include the need to strengthen sector governance, by clarifying the roles and responsibilities of the various institutions, so as to make them more effective and accountable. This Review agrees with the ICR's conclusion that AERs capacity needs continued strengthening to enable it to lead the rural electrification effort in Cameroon (ICR, paragraph 105)

a. Risk to Development Outcome Rating

Modest

8. Assessment of Bank Performance

a. Quality-at-Entry

The project's design was in principle consistent with its developmental objectives and the country's needs. However, in originally choosing a private sector-led approach to rural electrification over the traditional public utility-led approach for Component 1 (which accounted for over 60 percent of the projects financing), the Bank seriously underestimated the country-specific challenges of attracting private investment finance for electricity grid extension to rural households. The ICR provides no evidence that thorough background analysis of successful and failed rural electrification models and schemes in Sub-Saharan Africa or worldwide was conducted during project preparation, or for that matter any studies to test the interest of the private sector for investing in this sector. The design shortcoming led to the project having to be restructured in a major way after four years, with the private sector model being abandoned in favor of the traditional public sector approach to grid-based electrification. Even the capacity building and technical assistance component proved to be too ambitious and had to be scaled back (ICR, paragraph 106).

The project's results chain was adequate, in keeping with its design. However, the change in content of the components after restructuring resulted in a major makeover of the results framework, with a number of indicators being dropped, and new indicators introduced.

It should be mentioned that weaknesses in procurement capacity at AER (elaborated further in Section 9b), which proved to be a major issue affecting project implementation, were not adequately identified as a risk to the project's outcome during preparation.

On a positive note, technical assistance for managing the technical, environmental and social risks in preparation of the Lom Pangar hydro project, that was included in the original design of the operation, proved to be appropriate, contributing to the sustainable development of the energy sector.

Quality-at-Entry Rating

Moderately Unsatisfactory

b. Quality of supervision

The project was supervised on a regular basis throughout its duration. Supervision missions were conducted on a twice-yearly basis, with a total of 16 Implementation Support and Results Reports (ISRs) being archived over the projects life (of over eight years). A Mid-Term Review was carried out in February, 2016, which provided the basis for the project's restructuring in 2013.



There was close supervision by a field-based World Bank task manager which allowed the task team to provide proactive management support to the project, such as providing support for mid-course corrections when the operation ran into problems. The team maintained an intensive on-going dialogue with the Government and its implementing agencies, allowing it to agree in detail on next steps and follow-up actions with counterparts, and to monitor fiduciary, environment and safeguards compliance.

According to the ICR (paragraph 30), adequate budget and staff resources were allocated for supervision activities. The Bank team included experienced staff members, with a good knowledge of the power sector in countries in Africa. The team responded to the implementation challenges faced by the project by processing four Level 2 restructurings, which enabled the completion of most project activities under Components 2 and 3, and construction contracts in two regions financed by Component 1.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. Assessment of Borrower Performance

a. Government Performance

The Government stakeholders were the Ministry of Energy and Water (MINEE), and also the Ministry of Finance (MoF), as the borrower on behalf of the Republic of Cameroon. According to the ICR (paragraphs 8 to 11)), both ministries supported the design and development objectives of the project, and MINEE showed strong commitment to rural electrification through approval and operationalization of the key regulations and the Rural Electrification Masterplan.

The Government was supportive of the private sector-led approach that underpinned the rural electrification objective of the project. However, it apparently failed to appreciate that private investors would require an appropriate regulatory environment, including an end-use tariff structure that would have to be set at a realistic level, to cover the cost of the concessions, which might be politically infeasible to implement. Apparently, the Government failed to take into account the fact that the compensation process associated with agreements with land holders for right of way for transmission lines in Cameroon was highly complex. For example, publication of compensation decrees resulted in extensive delays in the rural electrification works (ICR, paragraphs 57 and 64).

Government Performance Rating

Moderately Satisfactory

b. Implementing Agency Performance

Four agencies were responsible for implementing the operation: the Ministry of Energy and Water (MINEE),



the Rural Electrification Agency (AER), the Electricity Development Corporation (EDC) and the Sector Regulator (ARSEL). Of these, AER was in charge of implementing the rural electrification component (Component 1), which accounted for the bulk of the funds allocated under the project.

Of these, MINEE, which was responsible for overall coordination of the project, as well as for some capacity building and implementation of studies under Component 2, and ARSEL, also responsible for implementation of some key studies, performed adequately. Some of the studies overseen by MINEE, such as the Rural Electrification Masterplan and the Sector Development Plan, experienced procurement delays, but were eventually completed and adopted by the project closing date. In the case of ARSEL, studies such as the review of regulatory functions, experienced some delays, but were also completed by project close. EDC, which was responsible for implementing the preparatory activities for the Lom Pangar hydro project, financed under Component 3, delivered all these activities on a timely basis, and hence its performance could be considered fully satisfactory.

With regard to AER, however, its performance had important deficiencies, especially in procurement and supervision of the grid extension contracts that were crucial to the performance of the project as a whole. AER's weak procurement capacity, lack of coordination between the different agencies involved and the absence of standard bidding documents, resulted in a delay of as much as a year-and-a half in procuring the three contractors responsible for extending the grids in the three regions (and eventually to the cancellation of one of the contracts, as time ran out by project closure). For these reasons, the performance of AER can be considered unsatisfactory.

It should be mentioned (as noted in the Government's comments on a draft of the ICR) that the project lacked a full-time project coordinator, as a consequence of which regular meetings by the Steering Committee did not take place. This constrained coordination, and negatively affected implementation of the project.

Based on the above ratings, but giving more weight to the rating for AER, which was in charge of Component 1, which accounted for the major share of project funds, the overall rating for Implementing Agency performance is Moderately Unsatisfactory.

Implementing Agency Performance Rating

Moderately Unsatisfactory

Overall Borrower Performance Rating

Moderately Unsatisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

As outlined in the PAD (page 15), an adequate M&E design was a key component of the project's design.

Monitoring of results was the responsibility of the individual implementing agencies (MINEE, AER, EDC and



ARSEL), with MINEE having the responsibility for producing joint quarterly progress reports, based on data collected and forwarded by the other three agencies thereby allowing for continuous monitoring of the projects indicators. When the rural electrification model was changed after the 2013 restructuring, these indicators were either dropped or revised, and some new indicators were added. In some ways the M&E system saw a sea change at the 2013 restructuring, with as many as seven indicators dropped, three revised, and four new indicators introduced. Only two indicators were left unchanged (see ICR, Table 1). The revised indicators were nevertheless mostly appropriate for monitoring the project's progress and its achievement of outcomes, though they reflected a much lower level of ambition, with targets being revised yet again during the final restructuring in 2017.

b. M&E Implementation

Notwithstanding changes to the indicators and their targets in 2013 and 2017, the different implementing agencies were able to report progress on a timely basis during implementation of the operation. Data were provided to MINEE, which in turn reported on progress to the Bank, which used the information to update its Implementation Support and Results Reports (ISRs).

c. M&E Utilization

The M&E framework made it possible to track the progress of the project and to change activities and the allocation of funds from non-performing to well-performing activities during the restructurings. Reports on the progress of the project post-2013 restructuring revealed that progress in implementing the grid extensions was slow, especially in one of the three regions, which eventually led to its cancellation.

M&E Quality Rating

Substantial

11. Other Issues

a. Safeguards

The project was rated as Category A, and triggered the following safeguards policies: Environmental Assessment (OP/GP/BP 4.01), Natural Habitats (OP/BP 4.04) and Involuntary Resettlement (OP/BP 4.12). For the rural energy fund, exact locations of rural energy projects were unknown at the time of appraisal. However, bearing in mind that all rural energy projects would be likely to have some environmental impacts and might require some resettlement, the Government of Cameroon prepared an environmental and social management framework (ESMF) and a resettlement policy framework (RPF), to be applied in case rural energy projects were likely to trigger these safeguard policies. As regards the Lom Pangar hydro project (LPHP), the project financed only preparatory activities, which did not trigger any safeguard policies. Also, no commitment was made by the World Bank at the project appraisal stage to finance LPHP.



Environmental: The projects ESMF and RPFs were updated during the 2013 restructuring to reflect the realities of the new rural electrification model. With the change in implementation arrangements for Component 1, AER assumed responsibility for screening grid extension activities, preparing the ESMF and Resettlement Action Plans (RAP), and additional safeguard documentation as necessary, and ensuring compliance. As confirmed by the TTL, all safeguards were complied with by close of project. Implementation of safeguards was rated satisfactory throughout the project's life.

Social: Compensation decrees were delayed by nearly two years, on account of the lengthy compensation process in Cameroon, and were signed only in 2015. However, the compensation campaigns were generally well-managed and the process was completed even in the North-West region, where the grid extension contract was ultimately cancelled. The project complied with all the mitigation measures mandated under the ESMP and RAPs.

b. Fiduciary Compliance

Financial management of project funds was generally adequate throughout project implementation, being rated satisfactory or moderately satisfactory throughout. 82 percent of project funds were disbursed by the project's close, though commitments were at 98 percent. After restructuring in 2013, MINEE was given a formal coordinating role vis-a-vis the other agencies (AER, ARSEL and EDC). MINEE's staffing remained adequate through the implementation period and proper due diligence was maintained in respect of all expenditures. The auditors' opinions on the annual financial statements were submitted on a timely basis, and were unqualified. The interim un-audited financial reports were similarly submitted on time and their quality was satisfactory.

With respect to procurement, the process of its reform in Cameroon and the creation of a Ministry in charge of public procurement created some delays in the project's procurement activities. Procurement capacity in AER was weak and contributed to delays in implementing the three grid extension contracts under Component 1 (resulting in the cancellation of one contract). Procurement of studies and activities financed under Components 2 and 3 was adequate, though there were delays in procurement of some studies. According to the ICR, all project components were implemented in compliance with the Bank's procurement guidelines for works, goods and services (paragraph 66)

c. Unintended impacts (Positive or Negative)

d. Other



12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Risk to Development Outcome	Modest	Modest	---
Bank Performance	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Borrower Performance	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Quality of ICR		Substantial	---

Note

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons

The ICR presents a number lessons. Some of them, such as the need for standard bidding documents for procurement related to rural electrification projects, have been learned many times in the past. While not denigrating the relevance and importance of old lessons, the following lessons from the ICR stood out as interesting and relevant to the current focus on enhanced infrastructure development in Sub-Saharan Africa.

- **Relying on private sector participation for electricity grid extension without the provision of an adequate regulatory and enabling infrastructure, as well as adequate end-use tariffs to cover costs and provide a return on investment, is unrealistic.** This was the case in this project and consequently the assumption that the private sector would take advantage of the availability of substantial financial resources to extend electricity grids in rural areas was largely unsuccessful (ICR, paragraph 55).
- **Conducting feasibility studies for innovative infrastructure development in order to provide information to potential private sector entrepreneurs interested in contracting for such investments can lay the groundwork for efficient procurement of infrastructure construction** The lack of feasibility studies for contracts in this project at the time of procurement of the three grid extension contracts took up to 18 months for many reasons including the absence of standard bidding documents and the need to change technical specifications. This led to delays in signing contract agreements and hence delays in implementation. While two grid extension projects were eventually completed, the third grid extension project had to be cancelled as the contractor was underperforming and the planned activities could not be completed



by the project's final closing date. This cancellation resulted in the lack of electricity connections for approximately 10,000 new customers in 42 localities in the North-West region (ICR, paragraphs 25, 56, 57 and 120).

• **Ascertaining the likely risks and constraints to project implementation are a necessary aspect of project design at project appraisal.** For example, the lengthy and complex process in Cameroon for compensating landholders for the use of their land for ensuring right of way for transmission lines and similar reasons in this project involved national and local institutions but this not an identified risk during preparation nor in the course of the project's major restructuring. During the project's implementation the compensation process took over two years to complete which delayed the implementation of the project considerably. Had this risk been identified during preparation, it could have been addressed and either mitigated by the Bank working with the Government to streamline and simplify its processes or factored into the project's timetable (ICR, paragraphs 57, 64, 113, 116 and 125).

14. Assessment Recommended?

No

15. Comments on Quality of ICR

The ICR is clearly written, concise and is consistent with OPCS guidelines. It provides a detailed summary of the Project, its design and implementation, safeguards and other key issues arising. The analysis of design and implementation issues is candid. The ICR is critical of the design of the project, especially regarding the rural electrification component, where the private sector-led model failed to achieve its objectives and had to be replaced by a more traditional approach.

The assessment of the project is generally evidence-based and consistent with OPCS guidelines. A thorough discussion is provided on the implementation constraints faced by the project. Discussion of the results framework could however have been presented more clearly. Given that a split assessment of efficacy had to be undertaken, it would have been useful if the ICR had provided details of the results actually achieved in relation to original target values at the time of each restructuring, rather than just the final results at the close of the project. Secondly, in the discussion of project efficiency, it would have been useful to have presented a financial rate of return, as an accompaniment to the economic rate of return.

a. Quality of ICR Rating

Substantial

