



1. Project Data

Project ID P156208	Project Name Electricity Access & Services Expansion	
Country Congo, Democratic Republic of	Practice Area(Lead) Energy & Extractives	
L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD) 141,390,394.55
Bank Approval Date 04-May-2017	Closing Date (Actual)	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	145,000,000.00	0.00
Revised Commitment	133,875,817.07	0.00
Actual	141,390,394.55	0.00

Prepared by Burcin Pamuksuz	Reviewed by Dileep M. Wagle	ICR Review Coordinator Avjeet Singh	Group IEGSD (Unit 4)
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2. Project Objectives and Components

a. Objectives

According to the International Development Association (IDA) Financing Agreement (p.5) dated June 19, 2017, and the Project Appraisal Document (p.7) the project development objective (PDO) was “to expand access to electricity in target areas”. Although the “target areas” were not specifically defined, the areas of activity were Kinshasa West, Center and East and also North Ubangi Province.

The PDO did not change throughout the period of implementation.



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

Yes

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

Yes

Date of Board Approval

31-Oct-2023

c. Will a split evaluation be undertaken?

Yes

d. Components

The Electricity Access and Service Expansion (EASE) Project consisted of three components:

1. Network Upgrades and Access Expansion in Selected SNEL Service Areas (Estimated Cost at Appraisal: US\$95 million; Revised cost at first restructuring: US\$104 million; Actual Cost at Closing: US\$100.6 million). This component was to finance rehabilitation of distribution network operated by Democratic Republic of Congo (DRC)'s national power utility (SNEL) where power is either available from high voltage/medium voltage (MV) substations or can be restored in generation plants. The distribution networks subject to rehabilitation were part of SNEL's recovery plan and aligned with the Government of DRC (GoDRC)'s plan to electrify major cities and provincial capitals. This component had three sub-components: **1.1 Investments in Kinshasa:** This sub-component was to add new distribution network segments and to rehabilitate the existing network in the Kinshasa west, central and Kimbaseke. **1.2 Mobayi Hydropower Plant and Gbadolite Distribution Network:** This sub-component was to finance the rehabilitation of the Mobayi Hydropower Plant (MHP) and the associated transmission and distribution network in Gbadolite, the capital city of the new province of North Ubangi. **1.3 Technical Assistance:** This subcomponent was to provide services, capacity building, and operational equipment needed to ensure effective implementation and operation of upgraded and new SNEL infrastructure. Also, the subcomponent was to finance a gender-informed communications and awareness campaign and other citizen engagement activities.

2. Private Sector Based Access Expansion (Estimated Cost at Appraisal: US\$25 million; Actual Cost at Closing: US\$25.5 million). Based on the recommendations from a study funded by the Energy Sector Management Assistance Program, this component was to address the financing constraints of the private sector, through provision of debt and grant support to implement qualifying access subprojects under two facilities: **2.1 Credit Support Facility:** This sub-component was to finance development and potentially pilot the implementation of a Credit Support Facility (CSF) to provide commercial term financing for electricity access investments. An intermediary financial institution (IFI) was to on-lend project funds to participating financial institutions (PFIs) under commercial terms. The PFIs were to on-lend these funds to project developers with interest rates covering all costs (cost of funds, administrative costs, risks, and a small profit incentive for taking credit risk). **2.2 Electrification Fund:** This sub-component was to finance initial design and operation of the Electrification Fund, focusing primarily on the delivery of electricity connection cost



subsidies. The Fund was expected to be disbursed mostly to electricity connection subsidies to distribution network densification subprojects.

3. Sector Development and Implementation Support (Estimated Cost at Appraisal: US\$25 million; Revised cost at first restructuring: US\$16 million; Actual Cost at Closing: US\$16.8 million). This component was to contribute to the implementation of key institutional provisions of the 2014 Electricity Law, critical to expanding private participation in electricity access outside of SNEL's current service area. It consisted of four sub-components: **3.1 Institutional Strengthening:** The subcomponent was to support the establishment and operationalization of ANSER (rural and peri-urban electrification agency) and ARE (electricity sector regulator), complementing assistance from other multilateral and bilateral development agencies, including the AfDB and USAID. The support was to include the provision of technical and advisory services covering various topics including development of business plan, technical appraisal and due diligence of business plan/subprojects for PFIs, development of standard concession contracts and procedures. **3.2 Planning and Investment Development:** This sub-component was to finance the development of an electrification strategy and a least-cost geospatial electricity rollout plan in a participatory manner, bringing together the GoDRC, development agencies, private sector (including developers and financiers), and civil society. Also, it was to provide financing to feasibility studies and preparation of bidding documents for the electrification of some of the remaining unserved provincial capitals. **3.3 Mid-size Hydro Feasibility:** This subcomponent was to contribute to the development of the DRC's vast mid-size hydro potential by making available technical, economic, environmental, and social (E&S) safeguards. The sub-component was to support the identification of a long list of mid-size hydropower sites (both green and brown fields), the screening of the identified sites, and prefeasibility studies of the most promising sites. **3.4 Project Management:** The subcomponent was to fund the operationalization and running of the Project Implementation Unit (PIU) for the duration of the project.

Revised Components: At the project's first and second restructurings project's components were revised. At the first restructuring, which was initiated following the mid-term review, the sub-component 1.2 was scaled down as a result of delayed start of activities since the technical studies and the E&S safeguard assessments underpinning the rehabilitation of the MHP, and the Gbadolite Distribution Network were not done at project effectiveness. Also, recruitment of relevant consultants and engineered was also delayed. Accordingly, the project team and the GoDRC agreed that the full scope of activities could not be completed within the project's implementation timeline. The reduced budget from Component 1.2 was reallocated to Component 1.1 for expanding electrification activities in Kinshasa. In addition, Component 3.3 was dropped, as it became clear that the African Development Bank (AfDB) was also financing prefeasibility studies of hydropower sites, making the IDA-financed hydropower prefeasibility subcomponent redundant. At the second restructuring, Component 1.2 was further scaled down. It was decided that more time was needed to rehabilitate the Gbadolite distribution network and due to delays and cost increases, MHP generation units could no longer be rehabilitated. This group of activities were transferred to Access Governance and Reform for Electricity Project (AGREE-P173506). As a result, the second PDO indicator was dropped, and the intermediate results indicators were revised.

Transfer of Activities from Regional and Domestic Power Markets Development Project (PMEDE-P097201): Following the closing of the PMEDE and the effectiveness of EASE project, four contracts were transferred to EASE (Sub-component 1.1) without any available budget. These contracts included the completion of works (1) to rehabilitate existing stations and substations; (2) construction of a new substation at Mitendi, as well as (3) construction of a new substation at UPN district.



Please see section 2.e below for more details about project restructurings.

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

Project Cost: The project cost was originally estimated at US\$145 million (US\$118 million of IDA grant, US\$27 million of IDA credit). The third restructuring cancelled a US\$ 6.0 million from the project funds which were uncommitted at the time and was not be disbursed before the closing date. The actual cost at project closing was US\$141,390,394.55. The difference between the actual cost and the revised cost is due to SDR/USD FX changes during the project lifetime (Project team's written response to IEG's questions, March 21, 2025).

Financing: The IDA loan amount estimated at appraisal was SDR 106.8 million. This amount included an IDA grant of SDR 86.9 million (US\$118 million equivalent) and IDA credit of SDR 19.9 million (US\$27 million equivalent). In addition, US\$2 million of borrower contribution was anticipated. By project closing, the project had disbursed US\$141,390,394.55.

Borrower contribution: The anticipated counterpart funding by SNEL was intended for the compensation of affected people as a result of transmission, distribution and household connections. Despite some delays particularly during COVID-19 pandemic period, SNEL has provided necessary funding.

Dates: The project was approved on May 17, 2017, and became effective on February 1, 2018. The project's original closing was on October 31, 2022. The implementation period of the project was extended twice, first by one year to October 31, 2023 and then by eight months. The mid-term review took place in May 2020. The project closed on June 30, 2024.

Restructurings: The project had three level 2 restructurings:

Restructuring No. 1 (November 2022): This restructuring was initiated, following the project's mid-term review. Three major revisions were made: a) The restructuring scaled down sub-component 1.2. Significant delays were experienced in relation to MHP's rehabilitation and associated transmission and distribution network in Gbadolite. The delays were due to insufficient technical/procurement capacity of the implementing agency and additional delays due to COVID 19. And more importantly the technical studies and the E&S safeguard assessments underpinning the rehabilitation of the MHP and the Gbadolite distribution network were not done at project effectiveness. As a result, it was decided that these activities could not be performed fully by project's closing. Accordingly, the total cost of this component was reduced from US\$21.5 million to US\$10 million. b) The restructuring expanded electrification in Kinshasa through densification and extension of the SNEL (Mpassa and Malweka) and by rehabilitating selected power stations and substations in Kinshasa, including the construction of the Mitendi power station (transferred from PMEDE Project). The total allocated budget for electrification in Kinshasa increased from US\$68.5 million to US\$90 million. c) Component 3.3 was dropped, as it became clear that the African Development Bank (AfDB) was also financing prefeasibility studies of hydropower sites, making the IDA-financed hydropower prefeasibility subcomponent redundant. The total budget allocated for this sub-component was reduced from US\$5 million to US\$0.2 million. Some additional budget adjustments were made in relation to Component 3. The results framework was revised to reflect above said changes in the project activities (target for PDO indicator for number of people provided with new or improved electricity service was revised upwards and the target for the generation capacity of energy constructed or rehabilitated was revised



downwards). Lastly, the restructuring extended the implementation period of the project by one year to October 31, 2023 to help the project achieve its development objectives.

Restructuring No. 2 (October 2023): The restructuring scaled down sub-component 1.2 further. It removed the rehabilitation of MHP and associated Gbadolite network from the project eight months before the project's closure since the call for tenders relating to this contract having been declared unsuccessful due to the insufficient budget planned for the work. Accordingly, the activities could not be implemented. The total estimated cost for this activity was reduced from US\$10 million to US\$5.9 million. This activity is planned to be implemented under AGREE project. Accordingly, the estimated cost of ongoing works on Kinshasa distribution network was updated to reflect contingencies and additional densification and extension activities to support increase in household connection targets. The restructuring extended the implementation period by eight months in order to provide extra time to allow the completion of ongoing distribution extension works in Kinshasa, and to slightly increase the number of new connections. The implementation delays could be attributable to delayed counterpart funding, oversight difficulties and newly established institutions (ANSER and ARE). The results framework including the targets for the intermediate results indicators were revised to reflect these changes.

Restructuring No. 3 (July 2024): This restructuring cancelled US\$6 million from IDA grant which was uncommitted at the time and was not be disbursed before the closing date.

Reasons for to undertake split assessment of the project outcome: The ICR review implements a double split rating since the relevant PDO indicators and their targets were revised at the first and the second restructurings.

3. Relevance of Objectives

Rationale

Country Context: At appraisal the power sector in DRC faced major challenges, including low generation capacity, limited and fragmented networks, inefficient institutions, and low electricity access. At the time of appraisal, less than 16% of the country's population had access to electricity. The available electricity was not reliable and resulted in significant daily power outages, reaching 180 days per year. The government of DRC saw expanding energy access and modernizing energy infrastructure as a priority to combat poverty. The country's latest National Development Plan (NDP) 2019-2023, included, among other measures, renovating and expanding distribution network, modernizing the electricity sector by reforming SNEL, promoting greater private sector participation in the financing of the sector, and revitalizing the sector's regulatory body and the rural electrification agency, ARE and ANSER respectively. The plan also included the development of renewable energy in the country. To facilitate this, institutional reforms and support to decentralized production were planned. The PDO was designed on the Pillar IV of the NDP that proposed expansion of electricity access, modernizing energy infrastructure, and promoting gas and renewable energy. In this respect, the PDO was well aligned with the country's priorities since it targeted increased access through upgrading and expansion of the distribution network, supporting SNEL in performance of its duties and through development of financing mechanisms that would support private sector investments for increased connectivity.



Previous Sector Experience: The World Bank previously supported DRC's energy sector through two major projects: First, the South Africa Power Market Project (SAMP, P06928) which targeted reinforcement and improvement of power transfer capacity of the transmission lines to facilitate transfer of electricity to Zambia and the South Africa Power Pool. Second was the Regional and Domestic Power Markets Development Project (PMEDE, P097201), which addressed increasing power output through rehabilitation of generation facilities and distribution and addressing transmission bottlenecks in Kinshasa. The project also aimed to support improving SNEL's operational and technical performance. Until the current (EASE) project, increasing access was not a direct objective of the earlier-implemented projects, which had focused only on addressing the establishment of required conditions for increasing access. The project, therefore, complemented the World Bank's previous engagements in investments in generation, transmission, and utility strengthening, and set a relatively more challenging objective of increasing electricity access - building upon outcomes of the earlier projects.

World Bank Group Strategy: The project's development objective was aligned with the World Bank (WB) strategy as defined in the Country Partnership Framework (CPF) FY22-26. The CPS's Focus Area 2 targets "strengthening systems for improved service delivery and human capital development". More specifically Objective 2.2 under this focus area aims at improving access to basic infrastructure services (water, sanitary, hygiene -WASH, electricity, classrooms, health centers). The World Bank's engagements are intended to support expansion of access to electricity, and strengthen associated sectoral institutions and governance. In addition, analytical work and technical assistance are to support electrification in key provincial cities in DRC, including Kinshasa, as well as rural areas in Ituri, the Kivus and Kasais. In this context, the PDO and its associated output and activities were consistent with the World Bank strategy for this sector.

Overall, the project's development objective was well aligned with the World Bank's strategy and priorities in the country, as identified in the NDP. In addition, being the third operation targeting DRC's power sector, the project was consistent with progress over time as compared with earlier engagements, by directly targeting increased electricity access. The project objective was clearly defined to cover expansion of access to electricity. Based on these assessments, the relevance of objectives is rated High.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To expand access to electricity in target areas.

Rationale



Theory of Change (ToC): To achieve the stated objective, the activities of the project included upgrading and expansion of SNEL network in Kinshasa and Gbadolite, rehabilitation of the MHP, provision of funding to Electrification Fund and Credit Support Facility to facilitate private sector-led energy access expansion, provision of technical assistance, capacity building to SNEL and Ministry of Hydraulic Resources and Electricity (MERH) for sector development. These activities were expected to result in the following outputs: rehabilitated or constructed stations and substations in the Kinshasa City, transformers and connection cables installed, volume of loans and subsidies granted to private sector mini-grid developers and SHS providers, and the regulatory authority and the rural electrification agency operationalized. These outputs would lead to intermediate outcomes of increased numbers of people with new or improved electricity services in Kinshasa and Gbadolite, numbers of households with electricity access through private mini-grids and SHS, and enhanced sectoral capacity with new institutions. At the outcome level, an overall increase in energy access and services in DRC and increased private sector contribution to energy access were expected.

The theory of change was reflected in the results framework. There was a logical link between the selected activities, and the expected outputs and outcomes. The PDO was clearly defined as to expand access to electricity. The critical assumptions were that the capacity and the willingness of private sector companies would be in place to participate and benefit from the financial support facilities and political commitment by the government to pursue reform process and support for establishment of new institutions are also in place.

Outputs:

Achievements with respect to network upgrades and access expansion in selected SNEL service areas:

- The project provided in total 62,758 households with new electricity connections through SNEL's network against the target of 53,000 connections (50,000 connections in Kinshasa and 3,000 in Gbadolite). There were no new connections in Gbadolite since the rehabilitation and extension works of the Gbadolite network could not be implemented due to absence of sufficient preparatory technical studies and delayed procurement processes. As a result, connecting households could not be completed before the closing of the project. This contract was transferred to the Access Governance and Reform for Electricity and Water Sectors (AGREE) project, together with the rehabilitation of MHP. On the other hand, a total of 271,445 formal and informal households received improved services with prepaid meters in Kinshasa. Target was 235,000 households (230,000 in Kinshasa and 5,000 in Gbadolite). The percentage of female-headed households provided with new or improved electricity connection under the project was 39% against the target of 10%. According to the information provided by the project team the new connections targets for Gbadolite represented only 2.7% of the total new SNEL connection target under the project. Overall, both the original targets for new SNEL electricity connections (62,758 households against an original target of 53,000) and SNEL improved electricity connections (271,445 against an original target of 235,000) were largely exceeded. Target was partially achieved due to no achievement in Gbadolite.
- By project closing the number of hours of available electricity per day for customers in Kinshasa increased from the baseline of 4 hours to 16 hours while achieving the target of 16 hours. However, the target for Gbadolite (16 hours) could not be achieved due to reasons mentioned above. On the other hand, by project closing as a result of project activities, the average voltage drops of electric current in Kinshasa was 6.4% against the target of 10%. The baseline was 40% for Kinshasa. Target was partially achieved since no development could be reported for Gbadolite.



By project closing a customer satisfaction survey was conducted. According to the survey report, the households in the areas where supply was improved, were generally satisfied with the continuity of electricity service, with the frequency and duration of outages considered acceptable. On the other hand, newly electrified households express more dissatisfaction with the continuity of power supply, with more frequent and longer outages. The majority of households (households with improved service and new) perceived good stability and quality of electricity supply. However, a significant proportion of newly connected households reported problems with voltage fluctuations and untimely outages.

Achievements with respect to private sector-based access expansion:

- As a result of the implemented financial support programs 73,499 households received new electricity connections from private sector against the target of 2,500. Target was achieved.
- Out of the new private connections, 12,848 households were connected with the support from CSF, and 60,651 with support from the Electrification Fund.
- Through the Credit Support Facility, 26 sub-projects (target was 3 sub-projects) received loans to finance their businesses. 12 Secondary Loan Agreements signed between the Central Bank of Congo and PFIs (Banks and microfinance institutions). 3,588 subsidiary loan contracts signed between the PFIs and sector operators for an amount of 10 million US dollars (target was US\$8 million). Target was achieved.
- Under the Electrification Fund, 8 investment subsidy agreements were signed (target was 5) with the following private sector companies: Altech, Bboxx, ENK, Equatorial Power, Nuru, Orange Energy, Virunga and Weast. Target was achieved.

Achievements with respect to sector development and implementation support:

- The project supported operationalization of the rural electrification entity (ANSER) for provision of its logistics and consultants for capacity building activities. The experts of ANSER received training in micro hydroelectric and solar hybrid power plants, use of software, electricity pricing and manipulation of GIS data. In addition to support implementation, the project provided training to a total of 252 staff from the project management unit, MERH and ANSER, exceeding the target of 150 staff. Target was achieved.
- The project supported the development of a national geospatial electricity access plan and investment prospectus. The plan covered 121 cities, including 26 provincial capitals and included four five-year programs. The plan provided forecasts for electricity demand for 2020 and technical solutions in generation for meeting it. In addition, the technical and financial aspects for these solutions were analyzed. The plan also included a study on hydroelectric sites with a capacity equal to or greater than 2 MW. The plan is accompanied by an implementation strategy, a priority investment plan and a database contained in the PNGE platform. Target was achieved.
- Target for development of prefeasibility studies for 2 Mid-size hydropower sites was dropped at the first restructuring. This was because Component 3.3 was dropped, as it became clear that the African Development Bank (AfDB) was also financing prefeasibility studies of hydropower sites.
- The project completed the mapping the hydroelectric and solar potential of the DRC. An atlas of hydroelectric and solar potential including 575 hydroelectric sites and 119 useful solar sites with a power equal to or greater than 2 MW was developed. The end results were presented to the private sector. Target was achieved.



Other outputs reported in the ICR without any targets:

- Project supported rehabilitation of 8 substations (Liminga, Lingwala, Kinsuka, Limete, Deviniere, Sendwe, Masina) and supported construction of two substations (Mitendi and UPN).
- Installation of light posts helped reduction in theft and night time insecurity in the electrified areas.
- With the installation of prepayment meters SNEL revenues improved.
- The electricity provided to households improved conditions for children studying at home.

Outcomes:

Achievements as reported in the Results Framework:

- By project closing there were 3,261,614 people (407,702 households, approx. 8 people per household) with new or improved electrical service. Target was 2,000,000 people. Out of the total household connections 73,499 households received new electricity connections from private sector and 62,758 from SNEL's network. Target was achieved.
- The target of constructing or rehabilitating generation capacity of energy (target: 11.25 MW) could not be reached. The activities in MHP could not be implemented. The technical studies and the E&S safeguard assessments underpinning the rehabilitation of the MHP, and the Gbadolite Distribution Network were not done at project effectiveness. Also, recruitment of relevant consultants and engineers was delayed, the call for tenders relating to this contract having been declared unsuccessful due to insufficient budget planned for the work.

Overall, target for the PDO indicator (number of people with new or improved electricity service) was achieved and exceeded. While the target for the other PDO indicator (generation capacity of energy constructed or rehabilitated) was partially achieved, the project overall achieved to expand access to electricity in target areas. Based on these assessments project's efficacy in achieving its objective is rated Substantial.

Rating

Substantial

OBJECTIVE 1 REVISION 1

Revised Objective

To expand access to electricity in target areas.

Revised Rationale

The objective was not revised. The theory of change remained the same. However, targets for the PDO and output level indicators were revised, and new output indicators (sub-indicators) were introduced. The new indicators with respect to network upgrades and access expansion in selected SNEL service areas were introduced to assess achievements of activities transferred from the PМЕDE. Specific sub-indicators were introduced for new electricity connections and number of households with improved services for selected Kinshasa districts (Kinshasa Kimbaseke, Mposa-Mawelko, Kinshasa West-Central, Gbadolite). Also district specific targets for average voltage drops of electricity were introduced. With the increased scope of activities



in Kinshasa the PDO target of people provided with new or improved electricity was increased to 2.25 million from 2 million. In line with the slow progress in starting of implementation in Mobayi hydroelectric power plant, the PDO target for constructed and rehabilitated generation capacity was reduced from 11.25 MW to 3.75 MW. Regarding the components 2, three sub-indicators were introduced to assess contribution of the private sector in new household connections namely households with new electricity connections through on-grid private operators, households with new electricity connections through SHS and number of solar lanterns sold. In addition, an indicator for measuring the number of public street lights installed by private operators was added to the results framework. In relation to component 3, three new indicators were introduced: support for operationalization of ARE, tariff study of SNEL conducted, SNEL performance improvement and restructuring guidance study conducted. All changes in the targets are mentioned below in output and outcome sections.

Outputs:

Achievements with respect to network upgrades and access expansion in selected SNEL service areas:

- Revised indicator with new sub-indicators: The project provided in total 62,758 household with new electricity connections against the revised target of 55,500 connections (Target: 54,000 connections in Kinshasa and 1,500 in Gbadolite). The revised indicator assigned specific targets for sub-areas in Kinshasa (Mpassa Malweka, Kimbanseke, Western and Central Communes) which were all achieved and exceeded except the Kinshasa Mpassa and Malweka lot. Only 19,747 connections could be achieved (target 21,500 connections) by project closing since cabins targeted for new connections were overloaded and could no longer accept the additional loads (ICR, p.27). Also, there were no new connections in Gbadolite. Target was partially achieved.
- A total of 271,445 formal and informal household users received improved services with prepaid meters in Kinshasa. The revised target was 201,000 households (200,000 in Kinshasa and 1,000 in Gbadolite). Target was partially achieved.
- By project closing, the number of hours of available electricity per day that customers would receive in Kinshasa (Mpassa Malweka, Kimbanseke, Western and Central Communes) increased from the baseline of 4 hours to 16 hours. However, the revised the target of 20 hours could not be achieved. Also, the target for Gbadolite could not be achieved, for earlier-cited reasons.

Achievements with respect to private sector-based access expansion:

- The project supported 73,499 households with new electricity connections from private sector against the revised target of 25,850 households. Target was achieved.
- New indicators: On-grid private operators provided new connections to 26,070 households (target: 6,000 households), and 30,127 households received electricity access through SHS (target: 15,500 households). Through subsidies from Electrification Fund 35,630 solar lanterns were sold (target 35,000). Also, private operators installed 550 public lighting points (target: 600) in the cities of Goma, Beni and Butembo. All targets for private sector-based access expansion were achieved with the exception of public lighting points.
- Through the Credit Support Facility, 26 sub-projects received loans to finance their businesses against the revised target of 5 sub-projects. Target was achieved. Under the Electrification Fund, 8 investment subsidy agreements were signed achieving the revised target of 8 agreements.



Achievements with respect to sector development and implementation support:

- New indicator: The project provided support for provision of its logistics and consultants for capacity building activities for the set-up and operationalization of the regulatory authority for electricity sector (ARE). Training activities were organized in favor of ARE experts in micro hydroelectric and hybrid solar power plants, and the use of electricity pricing and the manipulation of GIS data.
- New indicator: A tariff regulation framework for the electricity sector and a specific tariff schedule for SNEL SA was prepared for ARE.
- New indicator: Project supported the development of a performance improvement and restructuring guidance study for SNEL. The study included 5 restructuring options for SNEL.

Outcomes:

- By project closing there were 3,261,614 people (approx. 8 people per household) with new or improved electrical service against the revised target of 2,250,000 people. Target was exceeded.
- The target of constructing or rehabilitating generation capacity of energy was reduced from 11.25 MW to 3.75 MW. Although activities in Mobayi hydropower plant could not be implemented, according to the additional information provided by the project team, a total of 3.74MW renewable energy was installed through the support provided by the project to SHS(3.22MW), solar lamps and public lights (0.5MW).

Overall, the targets for both of the PDO indicators were achieved and exceeded with the exception of targets in relation to Gbadolite. Based on these assessments the project's efficacy in achieving its objective is rated Substantial.

Revised Rating
Substantial

OBJECTIVE 1 REVISION 2

Revised Objective

To expand access to electricity in target areas.

Revised Rationale

This objective was not revised. However, the targets for the PDO and output level indicators were revised. The second PDO indicator was dropped. Also, intermediate results indicators related to Gbadolite network were dropped from the results framework. The PDO indicator for people provided with new or improved electricity service was further increased. All targets for the new output indicators for Components 1 and 2 were also further increased with two exceptions (target for average voltage drop of electricity for two districts- Maleka and Kimbansake- being reduced slightly). All changes in the targets are mentioned below in the output and outcome sections.



Outputs:

Achievements with respect to network upgrades and access expansion in selected SNEL service areas:

- The project provided in total 62,758 household with new electricity connections against the revised target of 65,500 new electricity connections achieving slightly below the target. The target was defined only for Kinshasa and its sub-regions only. The target for connections in Gbadolite was dropped. The achievement for connections in Mpsa Malweka (19,747) were below the target (31,500). However, the project achieved and exceeded its targets for connections in Kimbanseke and Western and Central Communes.
- By project closing, 271,445 formal and informal household users received improved services with prepaid meters in Kinshasa. The revised target was 270,000 households. Target for connections in Gbadolite was dropped. Target was achieved.
- As a result of project activities, the average voltage drop of electric current in Kinshasa was 6.4% against the target of 10%. The baseline was 40% for Kinshasa. Target for Gbadolite was dropped. Target for Kinshasa was achieved.

Achievements with respect to private sector-based access expansion:

- Project supported 73,499 households with new electricity connections from private sector against the revised target of 32,900 households. Target was more than fully achieved.
- On-grid private operators provided new connections to 26,070 households (revised target: 15,100 households), 30,127 households received electricity access through SHS (revised target: 17,800 households). Through subsidies from Electrification Fund 35,630 solar lanterns were sold (target 35,000). Also, private operators installed 550 public lighting points in the cities of Goma, Beni and Butembo against the revised target of 1,400 public lighting points. All targets for private sector-based access expansion were achieved with the exception of public lighting points.

Outcomes:

- As a result of the project activities, there were 3,261,614 people (approx. 8 people per household) with new or improved electrical service against the revised target of 2,330,000 people. Target was achieved.
- Target of constructing or rehabilitating generation capacity of energy was dropped at the second restructuring.

Overall, the project achieved and highly exceeded its outcome target of providing new or improved electricity services to people. All output targets except two (slightly below target) were achieved. Based on these results, project's efficacy in achieving its objective is rated High.

Revised Rating
High



OVERALL EFFICACY

Rationale

The overall original efficacy is assessed as Substantial. Although target for the second outcome indicator was partially achieved, the project overall achieved to expand access to electricity in target areas.

Overall Efficacy Rating

Substantial

OVERALL EFFICACY REVISION 1

Overall Efficacy Revision 1 Rationale

Under Revision 1, the overall efficacy is assessed as Substantial since both outcome targets were achieved.

Overall Efficacy Revision 1 Rating

Substantial

OVERALL EFFICACY REVISION 2

Overall Efficacy Revision 2 Rationale

Under Revision 2, the overall efficacy is assessed as High. The project achieved its PDO target and almost all of its twenty-four intermediate indicators.

Overall Efficacy Revision 2 Rating

High

5. Efficiency

Economic and financial analysis: At appraisal a cost-benefit analysis approach was used for economic analysis of Components 1 and 2 of the project. The economic returns at appraisal were estimated at 28 percent, (NPV\$437 million). By project closing, the economic rate of return was 28.6 percent (NPV\$341 million), calculated based on actual disbursements and revisited assumptions. The ICR also highlights some additional benefits which cannot be quantified. These include improvements in service quality, health benefits are claimed for the avoidance of gensets and lighting kerosene, local environmental benefits, and increases in per capita GDP. The financial analysis conducted at appraisal indicated that the access expansion in Kinshasa over SNEL's network was not financially viable. The installation of meters in currently unmetered area was expected to significantly reduce consumption, because consumers would need to pay for what they consume. In addition,



the rehabilitated system was expected to reduce theft. The net result was an improvement in SNEL’s financial position through improved cash recovery, although this was not expected to be sustainable due to its below-cost tariff. The ICR reports an increase in SNEL revenues as a result of installation of prepaid meters.

Administrative and operational efficiency: The project experienced some challenges which negatively impacted operational and administrative efficiency. The absence of the PIU coordinator (due to non-renewal of the contract), issues (delays) in mobilization of counterpart funding and also COVID-19 negatively impacted and delayed project implementation by 20 months. In addition, due to low level of readiness in relation to design the rehabilitation of the Mobayi Hydropower Plant and the associated transmission and distribution network in Gbadolite had to be dropped and accordingly one of the targets for PDO indicators could not be achieved. The belated decision (due to the resistance of key stakeholders- ICR, p.24 and 26) to restructure to drop this set of activities also negatively impacted the project.

The project’s efficiency is rated Modest due to administrative and operational inefficiencies, notwithstanding the fact that the project’s economic returns estimated at closing were in line with those estimated at appraisal.

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	✓	28.00	0 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	28.60	0 <input type="checkbox"/> Not Applicable

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

6. Outcome

As mentioned in section 2.e above, this ICR review undertook a double split assessment of the project outcome. Details of the calculation are presented below:

Relevance PDO	High		
Efficacy PDO	Original	1st Revision	2nd Revision
Objective 1	Substantial	Substantial	High
Overall Efficacy	Substantial	Substantial	High
Efficiency	Modest		
Outcome Ratings	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory



Numerical value of the outcome ratings	4	4	4
Share of disbursement	60% (0.60)	26% (0.26)	14% (0.14)
Weighted value	2.4	1.04	0.56
Final outcome rating	2.4+1.04+0.56=4 (*)		

Based on the split evaluation, the ICRR rates the Project’s outcome as Moderately Satisfactory.

(*) When a split rating is applied, outcome ratings are assigned a numeric value from 6 (highly satisfactory) to 1 (highly unsatisfactory) as per Guidance Manual for Independent Evaluation Group Validators (May 2024). The numeric value of 4 corresponds to a “moderately satisfactory” rating.

- a. **Outcome Rating**
Moderately Satisfactory

7. Risk to Development Outcome

Political risk: Political risk is high. The possibility for the borrower to ensure peace and security in the country and to display more commitment in the pursuit of the reforms aimed at enhancing the governance and the efficiency of the utility and the electricity sector by creating an environment conducive to more private sector involvement is the key risk.

Government ownership/commitment: The electricity sector in DRC is still going through a reform process. The institutions are adjusting to their roles and new facilities are being introduced with implemented projects. The government commitment to pursue reform processes in the sector will be key to maintain achieved progress.

Financial Risk: Financial risk is high. Developing financial stability in the electricity sector is difficult. Currently there is no regulatory framework to ensure regulation of financial resources generated by electricity sector. The below-cost tariff puts the system operator SNEL in difficult condition. The regulator needs to strike a balance between ensuring affordability but also supporting financial sustainability of the sector.

8. Assessment of Bank Performance

- a. **Quality-at-Entry**

The project was strategically relevant to the GoDRC’s policies. The PDO was in line with the government’s priorities and the Bank strategies. The NDP of the country sees energy access a key



priority action to compact poverty. The PDO targeted increasing access to electricity both through on-grid and off-grid interventions and facilitated involvement of private sector-based access expansion. In addition, the project supported sector development through technical studies and capacity building to the sector's key institutions (ARE and ANSER). During the design stage, the World Bank team engaged broadly with all relevant stakeholders including all levels of the government, private sector, development partners, financiers, and consumers and the project was prepared in a consultative approach. However, the technical design of the project was complex. It involved implementation of activities at several distant locations. It also involved development of a brand-new financing mechanism and new institutions. The project's implementation readiness was not in place to accommodate such complex process. The ICR (p.17) reports that most of the required studies and institutions and safeguards assessments and cost assessments of most project activities were not completed yet at appraisal. On the institutional side, ARE and ANSER were not created yet, and the instruments to implement private sector-led energy access connections were not designed yet. These factors complicated implementation and supervision, while delaying implementation and in some cases resulted in cancellation of activities (Mobayi/Gbadolite).

With respect to implementation arrangements, the project coordination and management unit (UCM) was set up outside public institutions. This enabled competitively hiring staff in accordance with the project implementation needs and building capacity of the UCM. Six risks were identified at appraisal, with an overall rating of High mainly because of volatile political situation and weak governance, absence of sector strategies and policies and limited capacity of stakeholders. Overall, risk assessment was thorough and candid, and included relevant mitigation measures such as preparation of a detailed implementation manual, development of least cost electricity access plan. However, these measures were unable to overcome the risk factors which negatively impacted implementation. Regarding M&E arrangements, the UCM was responsible for the overall monitoring and reporting of project progress while collecting inputs from SNEL and the intermediary financial institution (the Central Bank). Overall, the M&E had an adequate design to assess implementation performance and track progress toward achievement of the PDO. However, the results framework could have benefitted from additional indicators which could capture the impact of electrification and connectivity on the households.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

The Bank conducted regular supervision missions and developed 12 Aide-memoires and 13 ISRs over the duration of the project which were crucial to identifying challenges and obstacles that could negatively impact the progress. The mid-term review (MTR) was conducted in May 2020. The findings and the recommendations of the MTR resulted in the first restructuring of the project which revised the scope of the activities. The Bank team had frequent and open dialogue with all relevant stakeholders including the PIU, the SNEL, the Ministry, the representatives of the private and financial sector. The team continuously supported the relevant stakeholders and implementation of the activities in the tense political context and COVID-19 pandemic. During the engagements with the stakeholders, when necessary, the Bank TTLs brought in WB wide expertise to support the project team, especially regarding the operational manuals needed to disburse project resources through the Central Bank, the commercial banks and micro-credit institutions. The ICR reports that, despite the complex supervision requirements of the project, the PIU managed to supervise the fiduciary transactions, and the technical work related to the connections on



SNEL's network in Kinshasa, and the private sector-facilitated connections in country's provinces. Through three project restructurings the WB team tried to address implementation difficulties and bottlenecks. In this regard, the activity in relation to rehabilitation of Mobayi hydroelectric power plant and rehabilitation of Gbadolite HV and distribution network was scaled-down first and eventually cancelled at the second restructuring, only eight months before the project's closing. Although the ICR (ps.24 and 26) reports a resistance from key stakeholders, an earlier decision to drop this activity could have positively impacted the implementation of other remaining activities and enhanced achievements of the project.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The PAD did not include a ToC since it was not yet required by the Bank at the time of appraisal. The ICR included a ToC that reflected the relationship between the project activities, outputs, outcomes and long-term impact based on the detailed project description in the PAD. The project objective was clearly defined. The PDO was assessed based on the following two PDO outcome indicators until the second restructuring: (i) People provided with new or improved electricity service; ii) Generation capacity of energy constructed or rehabilitated. The second PDO indicator was dropped from the results framework at the second restructuring. The project initially included fifteen intermediate results indicators (IRIs) to track the progress of the different project activities. The first restructuring increased the number of IRIs to reflect the extended scope of Component 1. In addition, to assess private sector-based access expansion more specific indicators were introduced. The IRIs were measurable, reflected reasonable targets, and were connected to the project activities. The results framework could have benefitted from additional indicators to capture the impact of electrification and connectivity on the households. The M&E framework does not provide evidence on the results of increased connectivity. The UCM was responsible for the overall monitoring and reporting of project progress while collecting inputs from SNEL and the Central Bank. Progress reports were to be prepared the UCM for each semester of project implementation and submitted to the World Bank.

b. M&E Implementation

During the implementation period PIU (UCM) effectively conducted M&E activities with the support of an M&E specialist in the PIU. The WB team developed 12 Aide-memoires and 13 ISRs record and provide update on the progress of the project implementation. The results framework was revised to adjust changes of the scope of activities introduced through restructurings. The second PDO indicator was dropped at the second restructuring and additional adjustments were made in the IRIs by dropping



relevant connectivity targets for Gbadolite and increasing connectivity targets for regions around Kinshasa.

c. M&E Utilization

The M&E findings were regularly reviewed by the project team and the UCM. The M&E framework enabled the project team to make appropriate adjustments to the implementation plan, depending on the status of physical progress. As a result of the MTR and its recommendations the project was restructured for the first time. The ICR (p.19) reports that the M&E inputs also facilitated effectively in handling the transfer of activities from one project to another (from PMEDE to EASE, and from EASE to AGREE) and to facilitate the coordination among the several internal and external project stakeholders.

Overall, the project objective was clearly defined as to expand access to electricity. The M&E framework was revised to reflect the changes in the project's scope during the implementation. The PIU (UCM) effectively conducted M&E activities, and the findings were regularly reviewed. This allowed the project team to make necessary adjustments in the project. Based on this assessment the M&E quality is rated Substantial.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The EASE project has been classified in the environmental and social category "B" of the World Bank. The planned activities were not expected to cause significant or irreversible negative environmental or social impacts. The safeguard policies triggered to take appropriate measures to manage potential negative impacts related to the implementation of the project were: Environmental Assessment OP / BP 4.01, Natural Habitats OP / BP 4.04, Forests OP / BP 4.36, Physical Cultural Resources OP / BP 4.11, Indigenous Peoples OP / BP 4.10, Involuntary Resettlement OP / BP 4.12, Projects on International Waterways OP / BP 7.50. Of the triggered social policies following policies were implemented and complied with: Indigenous Peoples OP / BP 4.10: An Indigenous Peoples Planning (IPP) Framework was developed under the EASE project to ensure that the rights and interests of indigenous peoples in the project area are respected and protected. However, during the implementation of the project, this instrument did not lead to the development and implementation of an IPP because the presence of indigenous populations was not reported in the project area. Involuntary Resettlement OP / BP 4.12: The Common Property Resources (CPR) was developed and provided the guidelines and general principles that served as the basis for the development of Resettlement Action Plans (RAPs). In total, five RAPs prepared under the project implementation were executed. The related reports were approved by the World Bank. In relation to Projects on International Waterways OP / BP 7.50, due to planned activities on Mobayi hydropower plant (on Mobayi River which feed Congo River) notification letters were sent to riparian countries at the preparation stage. However, this planned activity was not implemented. (Written response of the project



team to IEG’s questions, March 17, 2025). Environmental Assessment OP / BP 4.01: The Environmental and Social Management Framework (ESMF) outlined an environmental and social screening process, including institutional responsibilities for screening, review, and clearance, and implementation of mitigation and monitoring measures for future investments.

b. Fiduciary Compliance

Procurement: The PIU had experienced difficulties in managing procurement activities. The MTR reported that there were procurement delays due to non-rigorous monitoring of the procurement schedule, lack of experience in conducting bid evaluations and lack of experience in using the Systematic Tracking of Exchanges in Procurement (STEP) tool. In line with the MTR, a second procurement specialist was hired for the PIU. In addition to overcome procurement delays, external experts were hired for bid evaluation. However, the project still experienced procurement delays. The group of activities in relation to rehabilitation of the Mobayi hydropower plant and the rehabilitation of Gbadolite distribution line in the northern Ubangi province was dropped because of procurement delays among other factors.

Financial Management: During the implementation of the project, financial accounting has been adequately done, audits and interim financial reports were timely submitted with no significant issues. The UCM submitted the final audit report in Dec 2024. The external auditor issued an unqualified opinion, and the report has been reviewed and accepted by the WB.

c. Unintended impacts (Positive or Negative)

None.

d. Other

None.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Modest	Substantial	
Quality of ICR	---	Substantial	



12. Lessons

The following three lessons are from the ICR with some adaptation of language:

- **While designing projects for large and FCV countries, following a programmatic approach can allow countries to structure a complex engagement as a set of smaller linked operations under one program and can help better adherence to applicable WB policies and achievement of project results.** A standalone project with complex design including technically or administratively difficult activates can be challenging to implement particularly in the FCV context. A programmatic approach would allow countries to pace their efforts through implementing smaller projects while adapting to applicable WB policies.
- **If appropriately designed, financing instruments supporting private investors for expanding urban and peri-urban electricity connections can deliver speedy and successful results towards increasing access to electricity.** Before designing the operating manuals for the management of the Electrification Fund, an in-depth benchmarking study was conducted to analyze in detail the constraints and economic challenges faced by private operators in the sector. With this factual data, the project team designed two detailed operating manuals; first deployment of individual solar systems for households, the second was about the densification of connections of users of renewable energy mini-grids. The manuals defined clear processes for selecting and financing projects led by private operators. As a result, through the Electrification fund, the project provided new electricity services to more than 60,000 households. All funds allocated to the Electrification Fund were disbursed.
- **Choosing activities located in a limited and easily accessible territory rather than located in several distant locations can help ensure that implementation challenges are addressed quickly and effectively.** The project experienced implementation problems partly because the project implemented throughout a large country, from the capital city of Kinshasa to the northern province of Ubangi, and the far-east provinces of Nord and South Kivu, including other provinces in between. During implementation, access to the North and the East provinces became challenging particularly during COVID-19 pandemic. Accessing Ubangi province was also difficult and activities in the province were dropped because of procurement delays and the inability for key stakeholders to timely address logistical, procurement, environmental and social safeguards.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was well written and provided adequate coverage of project activities and reported candidly on most shortcomings in concise form. The ICR includes a well-articulated theory of change which helps to justify the assigned ratings. However, there were errors in calculation of the outcome ratings while implementing split



assessment of the outcome. The report is internally consistent, and it included a relevant discussion on the achievement of the PDO. Lessons reflected the project experience and were based on evidence and analysis. There were a few shortcomings regarding financial management and safeguards sections which were addressed by the project team's written response to IEG's questions and during the meeting with the TTL. The M&E implementation section could have been enriched.

a. Quality of ICR Rating
Substantial