

Evaluation of Rural Electrification Concessions in sub-Saharan Africa

Detailed Case Study: Cameroon

Report to World Bank

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Executive Summary

Although still low, Cameroon’s rural electrification rate has risen significantly, from around 11 percent in 2000, to 18 percent in 2012.

Since 2001, a concession for the national electricity system has been used to extend connections to over 190,000 rural households. The concession was for the vertically-integrated and formerly state-owned national utility, SONEL. From 2001 to 2014, this concession was held by AES SONEL. After 2014 ownership transferred to ENEO. These concessions have been the main driver of Cameroon’s electrification.

History: In 1998, the Government of Cameroon passed the Electricity Law. This law established an electricity sector regulator and a rural electrification agency. It was designed to attract private sector participation. In 2001 the Government privatized the state-owned electric utility SONEL through a 20-year concession to the American power company AES. AES SONEL was granted a monopoly over transmission and distribution and the right to own up to 1,000MW of generation capacity. In 2014, AES sold its stake in AES SONEL to Actis. The company was renamed ENEO.

ENEO: ENEO (formerly known as AES SONEL) has achieved over 500,000 new connections since entering private hands. The concession agreement obligates ENEO to connect new customers—the concessionaire originally met this obligation by focusing on urban and peri-urban areas, to the detriment of rural areas. However, over time specific regional access targets were set. The Government of Cameroon and donors finance grid extension projects and then transfer them to ENEO, thereby extending ENEO’s service perimeter. Today, around 35 percent of ENEO’s one million connections are in rural areas.

Challenges: The concession has not been without its challenges. The concession contract has been reopened for negotiations at least three times since 2001—first in 2006, then in 2011, and most recently in 2015. A continuing challenge is the relatively high tariffs charged by ENEO. In 2011, the Government opted to freeze tariffs and to directly compensate the concessionaire.

New Directions: Going forward, the Government continues to finance and build new grid extensions with the intent to transfer them to ENEO. The Government has also been trying, mostly unsuccessfully, to attract private sector participation in projects outside the ENEO concession area.

Key Lessons:

The concession illustrates lessons for governments considering using a concession approach to rural electrification:

- National utility concessions can be powerful agents for change
- Grid extension can be implemented and financed by a combination of private enterprises, public actors and donors.

1 Introduction

The purpose of this report is to review Cameroon's experience with rural electrification concessions. Since 2001, a private entity has held a concession to operate the state-owned national electricity system. Cameroon has also unsuccessfully tried to implement smaller concessions in rural areas. This case study is one of six detailed case studies that form a body of evidence on the experience and successes of rural electrification concessions across sub-Saharan Africa.

Background on the Cameroon power system and its approach to rural electrification is presented in Section 2. The implementation of the concession for the national utility—ENEO (formerly known as AES SONEL)—is reviewed in detail in Section 3. The report concludes with an assessment of the concession model in Cameroon in Section 4.

2 Cameroon Background

To put Cameroon's rural electrification concessions in context, we first present the historical, economic and political context. Reference statistics for Cameroon are presented below.

Table 2.1: Cameroon Summary Statistics

| Indicator | Value |
|---|------------|
| Demographics | |
| Population, total (2014) | 22,818,632 |
| Population growth, 10-year average (2004-2014) | 2.55% |
| Rural population (% of total population) (2014) | 46.20% |
| Rural population growth, 10-year average (2004-2014) | 1.36% |
| Population density (people per sq. km of land area) (2014) | 48.3 |
| Economy | |
| GDP per capita (2014, current US\$, market exchange rate) | 1,427 |
| Real GDP per capita growth, 10-year average (2004-2014) | 1.08% |
| Debt to GDP (2014) | 22.70% |
| Electricity Sector | |
| Access to electricity, rural (2012, % of rural population) | 18.50% |
| Access to electricity, national (2012, % of total population) | 53.70% |
| Electric power consumption (kWh per capita) (2012) | 262 |
| Governance | |
| Ease of Doing Business index (2015 ranking out of 189 countries) | 158 |
| CPIA property rights and rule-based governance rating (2014); 1=low to 6=high | 2.5 |
| Government bond ratings (S&P Long-Term) | B (2007) |
| Corruption Perceptions Index (2014) - scale of 0 (highly corrupt) to 100 (very clean) | 27 |
| Legal system | Civil law |
| Administrative tradition | French |
| Fragile or conflict-affected state (any year, 1990-2015) | Yes |

Economy and demographics

Cameroon is a country of 22.8 million people with annual GDP per capita of US\$1,426. Over the last 20 years, population has grown at 2.55 percent per year and GDP per capita (in real PPP terms) has grown at 1.08 percent per year.

Politics and governance

Cameroon is a former colony which gained independence from France in 1960 and was joined by British-controlled Northern Cameroon in 1961. The country has been ruled by one president, Paul Biya, and his Rassemblement Démocratique du Peuple Camerounais (RDPC) party (formerly called Union Nationale Camerounaise-UNC) since 1982. UNC was the only legal political party until 1990, when multi-party democracy was introduced. Transparency International's corruption perceptions index ranks Cameroon very poorly at 158 out of 175 countries. The legal system is based on both civil and common law: Common law operates in the two Anglophone regions (North West and South West) and civil law operates in the eight francophone regions (Adamaoua, Centre, East, Far North, Littoral, North, West and South). These systems of law expanded to Cameroon through colonization by conquest. The administrative tradition is French and English.

The security and humanitarian situation in Cameroon has been mixed. Cameroon was classified by the World Bank as a fragile or conflict-affected state (FCS) in 4 of the 12 years between 2001 and 2012.¹ In 2013, the Independent Evaluation Group of the World Bank found that:

*“Cameroon shares some of the characteristics of fragile and conflict-affected states (FCS) including a conflict-affected neighborhood; the nontransparent use of revenues from its huge natural resource endowment; a dominant ruling party; an unwieldy, centralized government, delivering services poorly and unequally to its people; and increasing unemployment, particularly among the youth”.*²

2.1 Power Market Structure and Evolution

The current structure and legal framework of the electricity sector in Cameroon results from the successive reforms of 1998 and 2011.

The 1998 Electricity Law³ preceded a complementary Electricity Decree in 2000.⁴ These laws enabled the liberalization and privatization of SONEC, the state-owned power utility. In 2001, AES purchased a 56 percent share of SONEC, creating AES SONEC. As part of the privatization, AES SONEC and the Cameroon state signed a concession agreement. In 2014, AES sold its interest in AES SONEC to Actis. The company was renamed ENEC Cameroon.

ENEC Cameroun operates three distinct grids:

¹ According to the World Bank's Harmonized List of Fragile Situations for Fiscal Year 2015, available online at: <http://www.worldbank.org/content/dam/Worldbank/document/FY15%20Fragile%20states%20list.pdf>

² World Bank Independent Evaluation Group

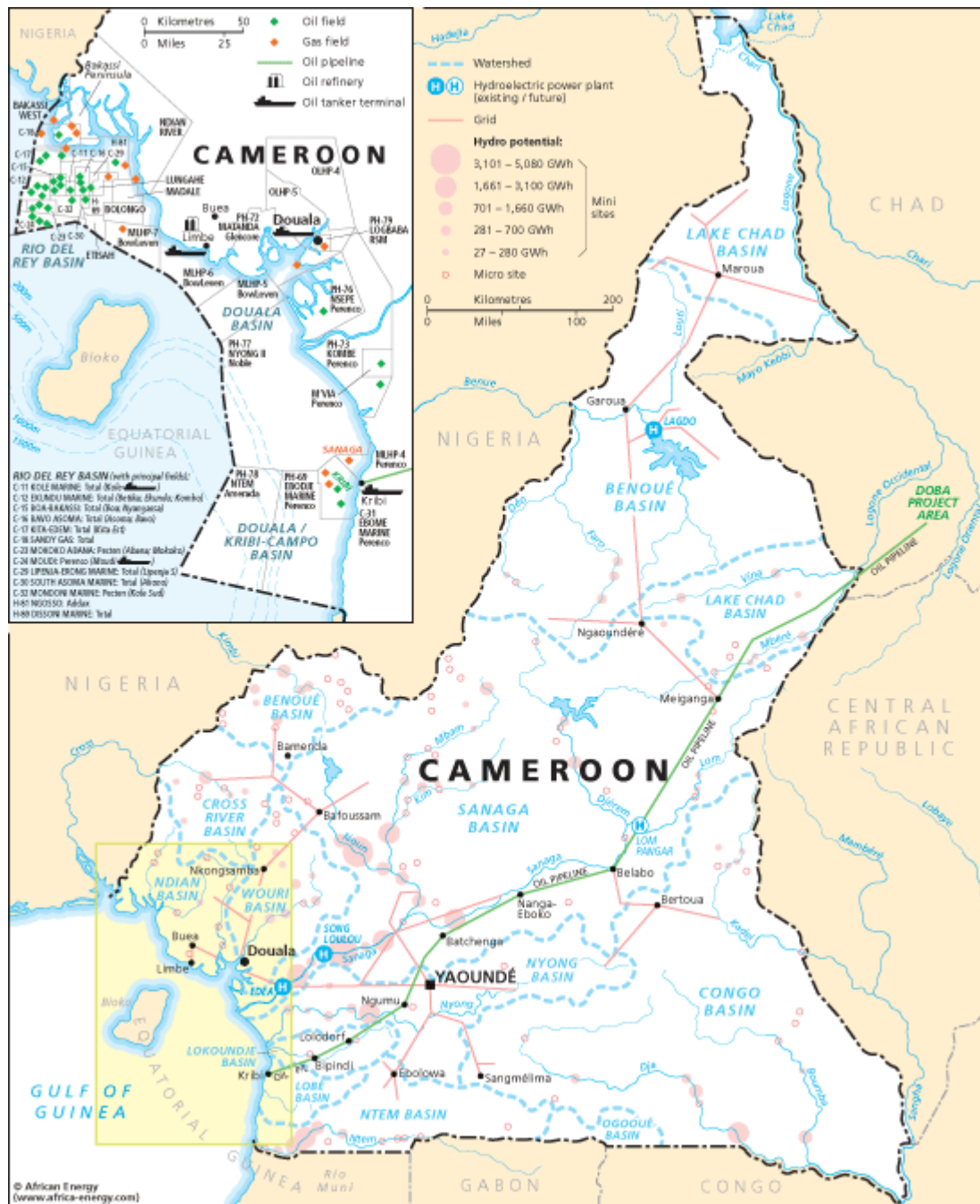
³ Law no.98-22 dated 24 December 1998 governing the electricity sector

⁴ Decree no. 2000/464 PM dated 30 June 2000 governing the electricity sector

- The Southern Interconnected Grid: a 225kV network connecting the major hydropower stations to large aluminum factories as well as Yaoundé and Douala, the country's largest cities and main consumption areas
- The Northern Interconnected Grid: 110kV and 90kV structures dispatching the power generated by Lagdo power station to cover the region's modest demand
- The Eastern Interconnected Grid: a low voltage distribution grid of 30kV.

A map showing the major existing network and load centers is presented in Figure 2.1:

Figure 2.1: Map of Cameroon Electricity Infrastructure



Source: Global Electricity Network Institute

Other Important Electricity Sector Actors

Other than ENEO, the main entities in the power sector in Cameroon include:

- Ministry of Energy and Water (Ministère de l'Eau et de l'Énergie, MINEE):** The MINEE is responsible for implementing government action in the energy sector and monitoring energy sector activities

- **Rural Electrification Agency** (Agence d'Électrification Rurale–**AER**): AER promotes and develops rural electrification projects across the country by providing financing to communities and operators. AER is a public institution established by Decree in 1999.⁵ AER is under the technical authority of the MINEE and the financial supervision of the Minister of Finance.⁶ In 2013, a Decree of the President of the Republic reinforced the AER mission⁷. AER's tasks and responsibilities were identified more precisely in the decree's section on rural electrification.
- **Rural Energy Fund** (Rurale Énergie Fund–**FER**): FER was created by presidential decree in 2009. It is not a legal entity and is managed by AER. The main purpose of FER is to grant a partial subsidy to priority investment programs involving rural electrification.
- **Electric Sector Regulation Agency** (Agence de Régulation du Secteur de l'Électricité–**ARSEL**): ARSEL was established by the 1998 Electricity Law governing the electricity sector.⁸ ARSEL regulates the electricity sector. its principal tasks are to:
 - monitor the sector's activity
 - approve tariffs and determine electrical standards
 - examine concession and license applications
 - authorize electricity generation and distribution
 - protect consumers; and
 - promote competition and facilitate private sector involvement in the sector.
- **Electricity Development Corporation** (**EDC**): EDC is a state-owned company created by decree⁹ that develops the electricity sector including all hydroelectric projects in the country. EDC is mainly in charge of building and operating of dams as well as operation and maintenance of storage dams (barrage-réservoirs). The purposes of EDC are to:
 - manage, on behalf of the State, public assets in the electricity sector;
 - study, prepare or implement any infrastructure project in the electricity sector assigned by the State
 - promote and develop public and private investment in the electricity sector.

⁵ Decree 99/193 dated 8 September 1999

⁶ Ministère de l'Énergie et de l'Eau (MINEE) « Présentation de AER » (<http://www.minee.cm/index.php?page=acr>)

⁷ Decree no. 2013/204 of 28 June 2013

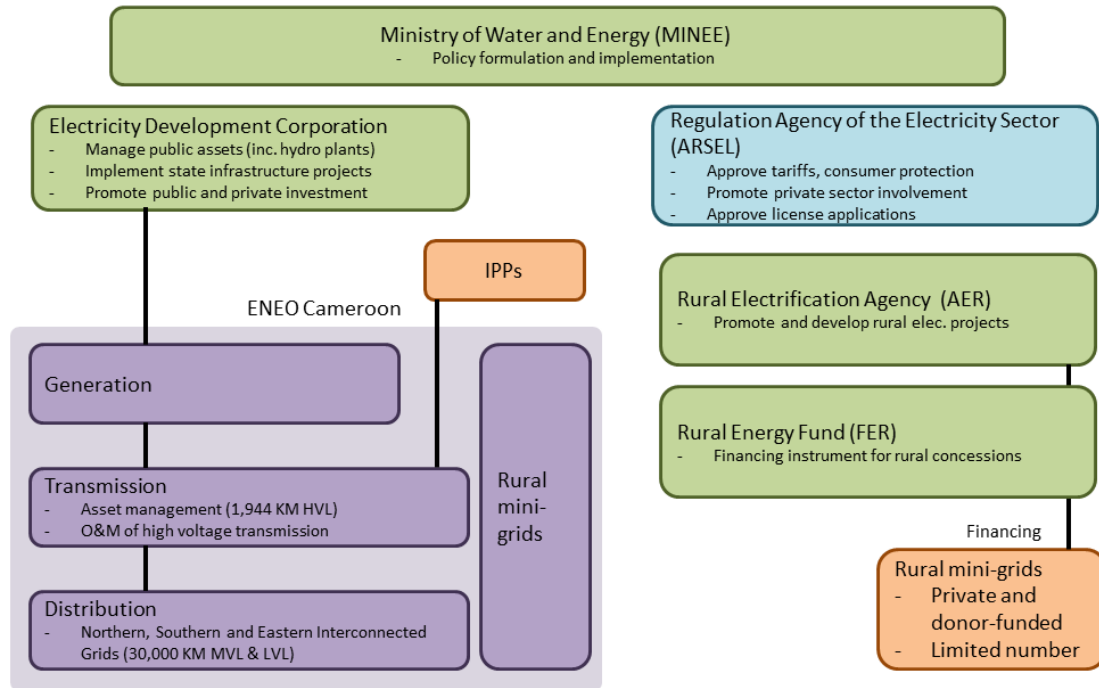
⁸ A Decree of 1999 (Decree no. 99/125 dated 15 June 1999) determines its composition, structure and operation. ARSEL has the status of a public administrative establishment in accordance to the law on the general status of public and para-public institutions and public sector companies (Law no. 99/016 of 22 December 1999).

⁹ Decree no.2006/406 dated 29 November 2006,

- **The Committee of Planning and Programming of Rural Energy (COPPER):** The Committee of Planning and Programming of Rural Energy (Comité de Planification et Programmation de l’Energie Rurale) was established by presidential decree in 2009. The committee’s main purpose is to ensure the proper allocation of resources and subsidies administered by the FER. The COPPER is chaired by the Minister of Water and Energy.

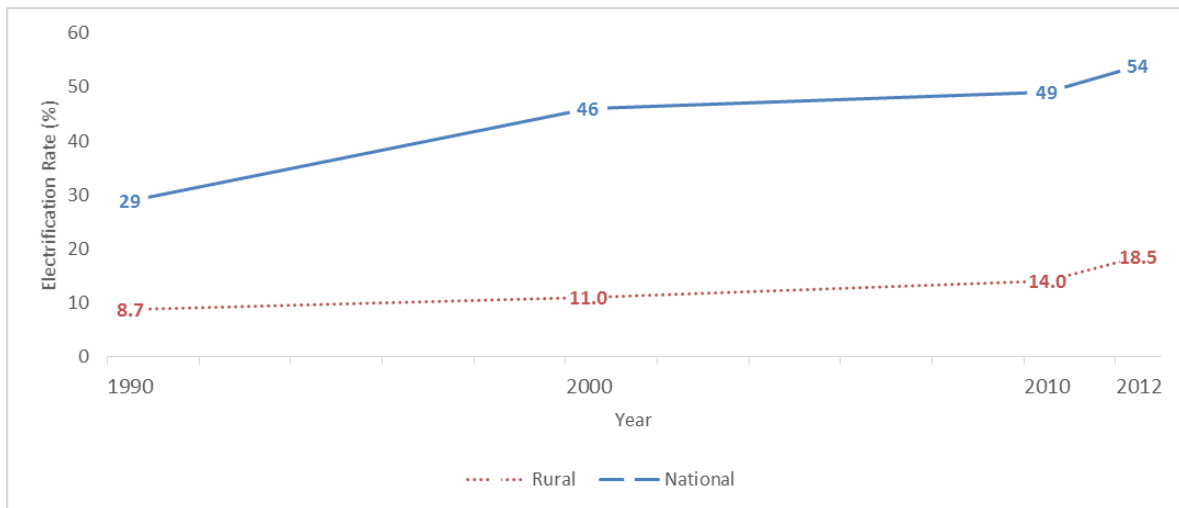
The power market structure in Cameroon is presented in Figure 2.2.

Figure 2.2: Cameroon Power Market Structure



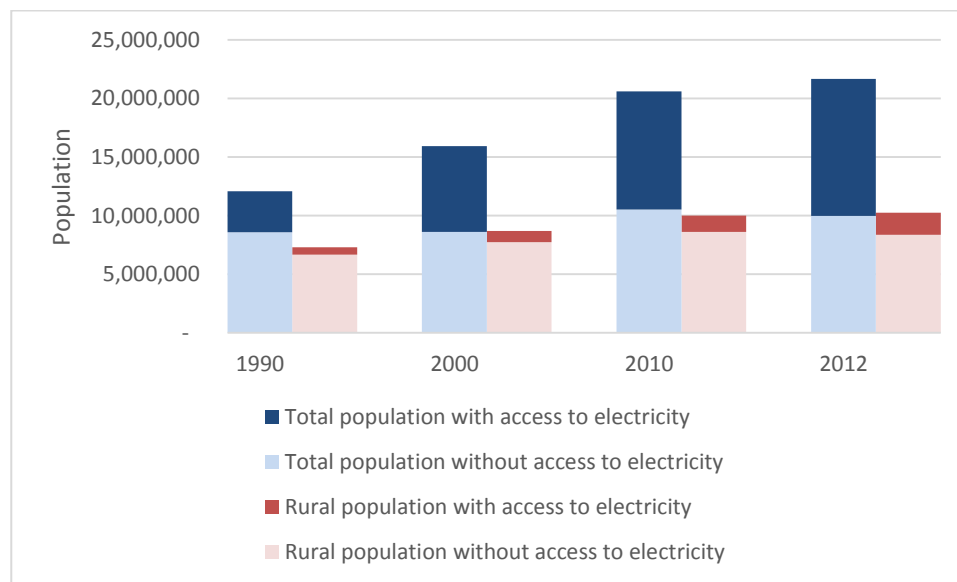
The rural electrification rate in the country was reported to be 18.5 percent in 2012 and has changed over time as follows:

Figure 2.3: Rural Electrification Rate in Cameroon (1990-2012)



Source: World Bank

Figure 2.4: Population with Access to Electricity, Cameroon (1990-2012)



Source: World Bank Open Data

2.2 Rural Electrification Approach

Under the new 2011 Electricity Law, similar to the 1998 Electricity Law, rural electrification projects are governed by a regime of licenses and authorization distinct from the main concession. ARSEL is the granting authority for these license, not the Minister upon the regulator's recommendation as is common elsewhere in Cameroon's power sector. Distribution projects in rural areas with capacity below 1MW can be granted authorizations by ARSEL; there is no requirement for an international call for bids.

In addition, the 2011 Electricity Law provides for specific provisions related to renewable energy, which are particularly relevant for rural electrification. The law:

- Specifies the term “renewable energy,” including: solar and photovoltaic energy, wind power; hydro power, biomass energy regardless of capacity, geothermal energy and marine origin energy;
- Increases the threshold of exploitable river-based hydro power to 5MW;
- Requires electric utility operators to connect any renewable energy producer (who applies) to the grid. Connection costs shall be paid by the applicant;
- Promises the establishment of an agency responsible for the promotion and development of renewable energy;
- Clarifies by regulation the terms under which renewable energy purchases will be made by the public service operator, including the volume and price of said purchases (feed-in tariff).

The rural electrification approach in Cameroon is electrification through grid extension. The government finances these extensions and hands off newly electrified areas to the national concessionaire ENEO.

The ENEO concession’s primary responsibility is not rural electrification. The 2001 concession agreement did set global objectives for extending electricity access in rural areas, but this is no longer the case. Instead, ENEO’s electricity access objectives are broken down by region. ENEO participates in electrification of rural areas through the extension of its grid and the operation of 26 small (from 250kW to 1MW) diesel power plants. The number of clients in rural areas is estimated at 35 percent of the total number of subscribers (that is, about 350,000).¹⁰

According to the Electricity Law, the MINEE is responsible for establishing and updating an annual rural energy program (Programme Annuel d’Energie Rurale–PAER).

Responsibility for rural electrification in the country lies in principle with AER, which manages (in conjunction with relevant entities):

- Contributing to the elaboration and implementation of Government policy in the domain of rural electrification
- Conducting surveys and studies with a view to providing technical and economic solutions for rural electrification
- Assisting rural communities and operators to prepare for rollout of rural electrification projects.

AER has tried to develop competitive bidding programs for concession in rural areas. However, these programs have not yet started, for various reasons. When the first concession programs were designed, no financing was available to provide the proposed subsidies to attract private operators to rural areas.

¹⁰ ENEO interview

The Fund for Rural Electrification was established in December 2009 as a department of AER in order to mobilize financing and grant subsidies to eligible projects. Its management was appointed in June 2011.

Currently AER mainly contributes to rural electrification by implementing grid extension projects financed by donors, which are then transferred to ENEO.

Private Sector Participation Outside the ENEO Concession

In 2012, a zonal concession program with 3 zones was designed by a consultant working as part of the World Bank PDSEN project (Projet de Développement de l'Énergie Rurale). However, the concession program was not implemented due to poor preparation, the risk of available funding expiring, and the Government's desires to use a faster method of increasing access. Instead, the World Bank PDSEN project was redirected towards a grid extension project to be implemented by AER (Projets d'Électrification Rurale Par Extension Des Réseaux Interconnectés Nord et Sud–PERENNIS).

AER is supposed to promote Local Initiative Projects for Rural Energy (Projets d'Initiative Locale d'Énergie Rurale–PILER) by launching one or two calls for projects per year. PILER projects can benefit from subsidies from the FER to cover up to 80 percent of the costs of studies and 70 percent of the investment costs of the project.

The PILER local initiative projects have failed to develop. This failure may be explained by the following reasons:

- The sale of electricity by small private operators of grid extension projects are not cost competitive with the low, equalized ENEO tariff. Similarly, decentralized production can compete with the national ENEO tariff only in rare circumstances (for instance, in remote areas with econ hydropower plants).
- Private promoters struggle to overcome administrative red tape. Promoters cite receiving little support from AER to prepare feasibility studies or to respond to permit applications to obtain permits.¹¹ An example is given by the Mbakaou project, which includes a hydroelectric power plant of 1.22MW and its associated electrical grid of approximately 70km of low and medium voltage network to connect 2800 subscribers across eight locations. The first application to ARSEL for a provisional authorization was made in 2009, the land attributed in 2011 and, the final ARSEL approval obtained in February 2015.¹²

Cameroon has large potential for decentralized hydropower and biofuel power plants. An EU project monitored by ARSEL called “Investelec” has identified 100 sites showing potential for installing power production. AER is now hoping to facilitate initiatives in this area by relaxing administrative requirements, strengthening AER's capacities to support promoters, and preparing standard documents (including power purchase agreements in cooperation with ENEO and standard arrangements for accessing the grid).

¹¹ Workshop on the barriers to SMEs participation in rural electrification sector, held on 7 November 2013

¹² Interview of the promoter.

Building publicly financed grid extensions

Several other public institutions other than AER participate in rural electrification projects financed through public aid. Occasionally these entities lack competence or are otherwise uncoordinated in their efforts. FEICOM, The Special Fund for Equipment and Mutual Assistance (Fonds Spécial d'Équipement et d'Intervention Intercommunale), was created in 1974¹³ and supports regional and local authorities in their development process including the development of electricity grid extensions in conjunction with AER. This seems to be a good example of cooperation.

The EDC's efforts in grid extension are more controversial. Its managerial and technical experience is in managing hydro plant assets. However, it has undertaken rural electrification projects. Constructing grid extension projects seems remote from the main purpose of the company and the technical skills of its personnel. Its rural electrification efforts are performed without coordination between other relevant bodies and the AER in particular.¹⁴

3 The ENEO Concession

In July 2001, AES Corporation acquired a 56 percent stake in state-owned power utility company Société Nationale d'Électricité (SONEL) and entered into a 20-year concession to generate, transmit and distribute electricity in Cameroon. The government's objectives for the SONEL concession were:

- To promote effectiveness and efficient operation of the power sector
- To increase private sector participation in the power sector

In June 2014 Actis acquired from AES the 56 percent interest in AES SONEL, renamed ENEO (for Energy of Cameroon) in September 2014¹⁵. In accordance with the provisions governing the privatization, 5 percent of the share capital should be transferred to the employees. ENEO has over 973,250 customers of which approximately 45 percent live in the cities of Douala and Yaoundé.

ENEO has presented an investment program amounting to XOF421 billion by 2024 and XOF902 billion by 2031, that implies that the term of the concession—which is supposed to end in 2021—would be extended.

3.1 Stages of Development

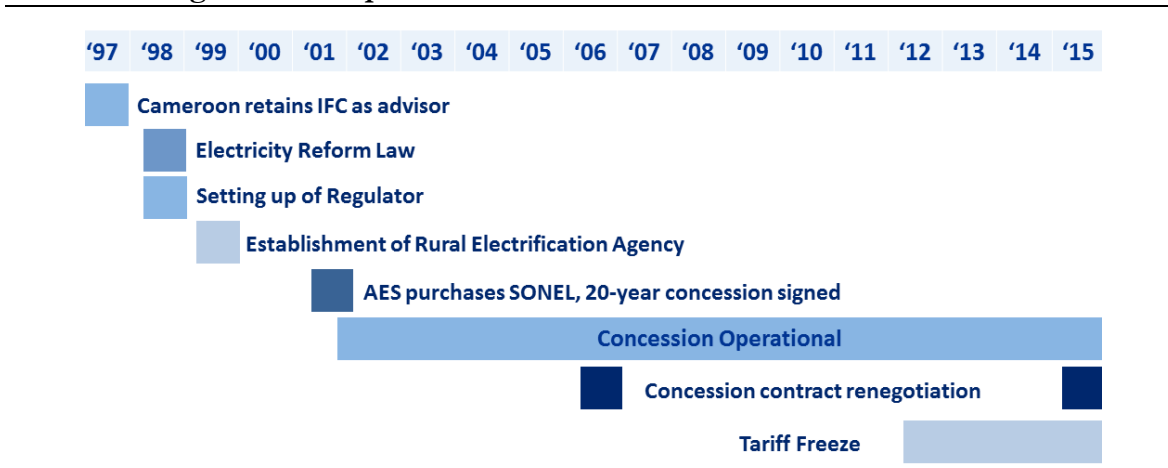
The concession began operations in 2001. A timeline showing the major stages of development around the concession is presented in Table 3.1.

¹³ By Law no. 74/23 of 5 December 1974 on communal organization in Cameroon and the implementing decree no. 77/85 of 22 March 1977

¹⁴ World Bank and IED interviews

¹⁵ Jeune Afrique (12 September 2014) Sonel devient ENEO Cameroon.

Table 3.1: Stages of development of concession



3.2 Operations and Management

The concessionaire has adequate capacity to operate and manage the concession.

We met ENEO managers in Douala. They are competent and have experience managing similar electricity sector assets. Several of the managers formerly worked at the main Uganda concession, Umeme.

Actis is very involved in the management and strategic direction of ENEO and the concession's ongoing contract negotiations.

3.3 Financing Arrangements

ENEO's capital funding strategy relies on private, public and donor money.

AES paid US\$71 million to the Government of Cameroon to acquire a 56 percent stake in SONEL. IFC was Cameroon's lead advisor on the transaction.¹⁶ AES sold its 56 percent stake in SONEL to Actis for US\$220 million (or about CFAF110 billion).¹⁷ The utility was concessioned via an international public tender. Five consortia pre-qualified, but two of the five withdrew before bidding was launched. The Government made the deal more attractive to potential investors by guaranteeing 50 percent of the purchase price against a number of risks including:

- Accuracy of financial accounting data
- The net book value of shareholders' equity
- Accuracy of asset lists.

AES Corporation was the only company to submit a bid that met the technical and financial requirements.

¹⁶ IFC, "Public-Private Partnership Stories, Cameroon: SONEL," January 2012

¹⁷ Eugene Nforngwa (The Standard Tribune), "Cameroon Approves Sale of Sonel," available at <http://www.standard-tribune.com/?p=331> (accessed 7 October 2015).

In terms of donor money, AES SONEL received €240 million in loans from a group of development finance institutions in 2006 to support its investment plans.¹⁸ IFC provided a corporate loan of up to €70 million as part of that package.¹⁹ 15.7 percent of this came from the African Development Fund (ADF).²⁰

Revenues are generated through cost-reflective tariffs, which have been the subject of recurrent negotiations between the State of Cameroon and AES (later Actis) several times. In addition, ENEO also has access to government and donor subsidies for new connections for customers farther from distribution lines.

ENEO currently receives subsidies from the Government of Cameroon to compensate for not applying the revised tariff approved in accordance with the concession (see section 3.6 below).

3.4 Contractual Arrangements

The 2001 concession agreement between the Republic of Cameroon and AES SONEL covers a 20-year period. The first three years constituted a grace period to permit resolution of any issues arising from the privatization.²¹

In 2004, the Cameroonian Government and AES SONEL started renegotiations around the concession contract. The issues included in this renegotiation process are: service quality requirements, connection targets, tariff formulation, the obligation to develop new generation capacity, and the penalties regime.²²

AES SONEL and the State of Cameroon have entered into four concession agreements, relating respectively to agreements for the concession's framework, electricity production, transmission, distribution and licensing for the sale of electricity.

These concessions and license have been amended in December 2006 in view, in particular to provide for:

- A reduction in of the cost of a connection, which was considered as an obstacle to the development of electricity access for households (before SONEL privatization, users did not pay for connections) and a provision for payment facilities for subscribers
- A revision of the objectives set forth in 2001 in replacing the breakdown of these objectives by size of cities (large cities, medium cities and rural areas) by a breakdown by regions; the global objective set to ENEO would be 70,000 new connections per year.

In 2012, AES SONEL and the Ministry of Energy and Water started a process of "re-reading" the concession contracts to assess their compliance with the Electricity Law of 2011

¹⁸ International Finance Corporation Office of the Compliance Advisor, "ASSESSMENT REPORT: Complaint Regarding the AES SONEL Project (IFC Project #11579) Cameroon," July 2013.

¹⁹ International Finance Corporation Office of the Compliance Advisor, "ASSESSMENT REPORT: Complaint Regarding the AES SONEL Project (IFC Project #11579) Cameroon," July 2013.

²⁰ AfDB, "Cameroon: Bank Group Supports Investment in Power Sector," 10 May 2006.

²¹ AES, 10-K, 4 April 2006

²² AES, 10-K, 4 April 2006

and with the new tariff principles. This process led to the signing in December 2013 of a Protocol summarizing the principles of agreements between the Parties, to be formalized in an amendment to the concessions. A second amendment to the concessions was signed on 7 August 2015 between ENEO and the Government of Cameroon on the basis of these principles. This amendment includes provisions for:

- The rehabilitation of the Song Loulou dam
- The transfer of storage dams to EDC (as already provided for by amendment n°1 signed in 2006)
- The transfer of the activity of transmission and management of the transmission grid to a Transmission System Operator, Société nationale de transport d'électricité – Sonatrel, established by a Decree dated 8 October 2015
- The definition of new service quality standards and new indices for measuring the quality of service and the design of an appropriate tool to identify and track the link between the level of investment and the maintenance and service quality standards, together with the investments required, to be submitted for approval to ARSEL
- Connecting objectives, which are broken down by region and should now be included in the annual business plan submitted to ARSEL together with a detailed report on the implementation of new connections
- Update of the tariff formula and the possibility to implement a multi-year tariff increase mechanism, which will replace the current mechanism of annual increase.

3.5 Technological Approach

ENEO is a national vertically-integrated utility that operates the majority of the generation, transmission and distribution systems in the country. ENEO manages three separate grids. New connections are achieved primarily through grid extensions. However, ENEO has also deployed independent 26 diesel generators for mini-grids in certain parts of the country. The production costs of electricity from these generators is approximately the double than the equalized tariff applied (170 CFA Francs/kWh).²³

Until recently, ENEO had an installed production capacity of 999MW, with 39 production plants, of which 13 are interconnected and 26 are small isolated power stations. Seventy-four percent of production is from hydraulic sources. In September 2015, Actis sold its stakes in two large thermal generators with a combined capacity of 302MW for US\$227 million (XOF125 billion).²⁴

The transmission network connects 24 stations and includes 1944.29km of high voltage lines, 15,081.48km of medium voltage lines and 15,209.25km of low voltage lines. The distribution network consists of 11,450km of lines from 5.5kV to 33kV, and 11,158km of lines of 220kV to 380kV.

²³ ENEO interview

²⁴ Camerounlink, « Un consortium anglo-norvégien rachète les centrales de Dibamba et Kribi. Montant de la transaction : 125 milliards F CFA », September 9th 2015.

3.6 Regulatory Arrangements

Tariffs are set by the MINEE upon ARSEL's recommendation.

Both the concession and license provide terms and conditions of periodic modifications of the tariff. The tariffs are in any case reviewed every five years, or in the event of any material changes which substantially affect the economic, financial and technical environment in which the contracts had been granted.²⁵

ENEO's electricity tariff is equalized and applicable countrywide. It may be revised annually on the basis of a revenue cap formula. The tariff which currently applies has been set in 2012, as follows regarding low voltage. Since 2012, the electricity tariffs applicable by AES SONEL are fixed as follows:

Table 3.2: Low voltage tariff approved by ARSEL in May 2012

| Residential subscribers | | |
|-------------------------|--|-------------|
| | monthly consumption installment | Tariffs |
| 1 | Consumption less than or equal to 110kWh | 50 FCFA/kWh |
| 2 | Consumption of 111kWh to 400kWh | 79 FCFA/kWh |
| 3 | Consumption of 401kWh to 800kWh | 94 FCFA/kWh |
| 4 | Consumption higher than 801kWh | 99 FCFA/kWh |
| Other subscribers | | |
| | monthly consumption installment | Tariffs |
| 1 | Consumption less than or equal to 110kWh | 84 FCFA/kWh |
| 2 | Consumption of 111kWh to 400kWh | 92 FCFA/kWh |
| 3 | Consumption higher than 401kWh | 99 FCFA/kWh |

Source: Decision no.00000096/ARSEL/DG/DCEC/SDTC dated 28 May 2012

AES SONEL and ENEO have presented requests for revising the tariff to the Regulator. The Government has decided to compensate the concessionaire for the amount of the approved increase instead of revising the tariff. Compensations paid in this respect are as follows:

Table 3.3: Compensation paid by government to ENEO for not applying revised tariff

| Year | Compensation amount (Billion XOF) |
|------|--------------------------------------|
| 2010 | 10,109 |
| 2011 | 18,258 |
| 2012 | 8,612 |
| 2013 | 0 |

²⁵ Article 82 of the 2011 Electricity Law

| | |
|-------|--------|
| 2014 | 17,493 |
| Total | 54,472 |

Source: ARSEL

4 Assessment of Concession

4.1 Evaluating Success of Concession

The ENEO concession has been considered relatively successful in terms of increasing access in Cameroon, improving service quality, and making the utility financially sustainable.

4.1.1 Access

Since 2001, ENEO has extended around 570,000 household connections since 2001. 190,000 of these connections are with rural households.

When AES SONEL took over SONEL in 2001, the company had 427,000 customers.²⁶ The concession agreement obligated AES SONEL to add at least 50,000 connections per year.²⁷ However, during the first five years, AES SONEL fell short of this obligation, adding only about 20,000 connections per year on average. In 2006, the company nonetheless expected to “add approximately 750,000 new electricity connections throughout the country by 2021 by adding approximately 50,000 new electricity connections each year over the next 15 years”.²⁸

In 2012, AES SONEL reported having 780,000 customers.²⁹ This implies an increase in 353,000 customers between 2001 and 2012. Most new customers were the result of grid densification, as opposed to grid expansion.

ENEO’s most recent official figures list 973,250 customers, of which approximately 45 percent live in the cities of Douala and Yaoundé. A company representative said they expected ENEO to reach 1 million customers by the end of September 2015.

4.1.2 Quality of service

The quality of service from the concession has been mixed.

In its first years, the concession did not significantly improve service quality.³⁰ This was partly attributed to a lack of capacity at the sector regulator ARSEL.

4.1.3 Sustainability

In our assessment, the concession is relatively financially sustainable. The 56 percent equity stake in the company has increased in value from US\$71 million to US\$220 million between 2001 and 2014.

²⁶ IFC, “Public-Private Partnership Stories, Cameroon: SONEL,” January 2012

²⁷ British High Commission Yaoundé, “The Power and Energy Sector in Cameroon,” 2012

²⁸ AES Corporation Fact Sheet: Cameroon

²⁹ CFAF 40 billion to export electricity to Nigeria (22 August 2012) in Business in Cameroon

³⁰ World Bank, “Cameroon Energy Sector Development Project,” Project Appraisal Document, 29 May 2008.

The concession has not been recovering its costs since 2010 as a result of the tariff freeze. Instead the Government has been subsidizing the company. However, in our assessment this is due to political reasons rather than economic reasons.

4.2 Arrangements that Could Have Delivered Better Results

Ex-post, we can say that alternative arrangements would have delivered better results. We would improve this arrangement by doing the following:

- **Coordinating grid extension efforts.** Construction of publicly financed grid extension would have been more efficient if made in a more coordinated manner.
- **Improving capacity at AER and FER.** Expansion of distribution may have been more successful if appropriate measures were taken to enable the AER and FER to meet the expectations set in policy. Specifically, these measures include: coordinating with publicly funded grid extension efforts; establishing the FER earlier; and strengthening AER's capacity to provide assistance to private promoters. AER could have facilitated AES SONEL/ENEO power purchase conditions and conditions for accessing the grid. AER could have also prepared standard documents, cut some administrative red tape, and coordinated more with ARSEL.

4.3 Reasons for Results

The success of the concession can be explained by the following key factors:

- There was a political commitment to making the concession work
- ENEO and the Government of Cameroon were successfully able to renegotiate and adapt to unforeseen changes in the sector and the economic environment.

4.4 Replicability of Experience and Success

The concession model used in Cameroon and its success can be replicated elsewhere in Africa. Cameroon remains one of the poorest countries in the world and a difficult place to do business. Despite these challenges, the concession was generally successful at putting the concession on solid footing. A commitment on the part of the Government of Cameroon to make the concession work appears to be a key success factor.

4.5 Lessons for Future Concessions

The concession illustrates lessons for governments considering using a concession approach to rural electrification:

- **National utility concessions can be powerful agents for change.** The ENEO concession added almost 600,000 connections between 2001 and 2015.
- **Grid extension can be financed by a combination of private, public and donor funding.** A range of different actors and financing sources in Cameroon are contributing to ENEO's grid extension efforts.