

private sector

Sophie Trémolet

This case study is part of a series reviewing business models for private companies providing infrastructure services to rural customers in developing countries. The case studies assess factors driving the performance of private companies in a variety of rural contexts and sectors and under diverse legal and regulatory arrangements. The objective is to identify lessons that can inform the design of private rural infrastructure schemes. The primary funding for this series came from the Public-Private Infrastructure Advisory Facility, a multidonor technical assistance fund. The World Bank task team for the case studies was Alan Townsend, Clive Harris, Lorenzo Bertolini, Michael Schur, Juan Navas-Sabater, and John Newstead.



Multi-Utilities and Access

Can Private Multi-Utilities Help Expand Service to Rural Areas?

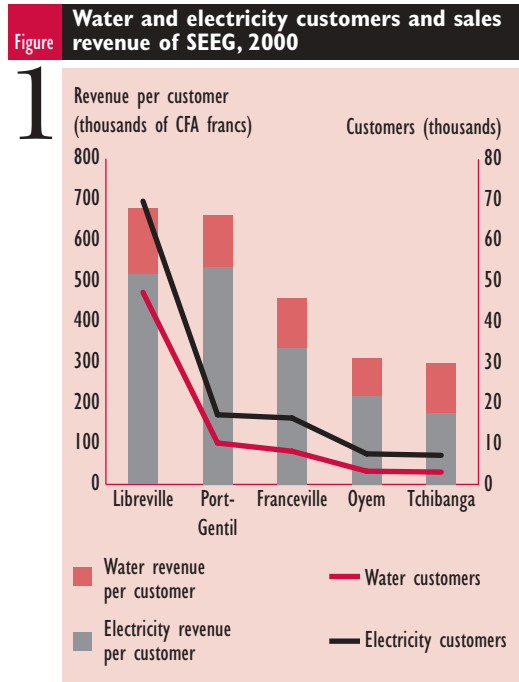
In 1997 Gabon awarded the first real concession in Africa, under a contract that introduced coverage targets for expanding service to previously unconnected rural areas. SEEG, the new concessionaire, offers both water and electricity service, with the electricity business cross-subsidizing the less developed water business. Five years on, the concessionaire has performed well in established service areas, often exceeding targets, but has made less progress in more isolated areas. This Note assesses lessons for the design of contracts with incentives for expanding service beyond the immediate circles of major urban centers—and on the potential role of multi-utilities.

In July 1997 SEEG (Société d'énergie et d'eau du Gabon) signed a 20-year concession contract with the government of Gabon for operating both water and electricity service throughout the country.¹ SEEG grew out of private municipal companies that provided water and electricity service in the two main urban centers—Libreville (the capital) and Port-Gentil (the main port, serving the country's primary oil-producing region)—with half the population. Rapid expansion followed the nationalization of SEEG in the early 1960s, so that by the time the company was privatized in 1997 it provided electricity to 39 centers and water to 32. Given Gabon's small population and dispersed rural communities (a population of just over 1 million, with four people per square kilometer on average), some of these centers are tiny, with just over 1,000 inhabitants.

The company, owned principally by Vivendi since its privatization in 1997, earns most of its revenue from electricity sales in Libreville and Port-Gentil (figure 1). These sales subsidize water and electricity service in the rest of the country. SEEG manages its business on the basis of operating regions (five until 2000, when the two smallest were combined into one).

Introducing private participation

The signing of the concession contract was preceded by about 10 years of preparation. This period was longer than might be expected, but it allowed important reforms, such as defining a legal framework, raising tariffs to levels reflecting costs, and reducing staffing between 1989 and 1997. Once the groundwork had been laid, the transaction proceeded smoothly and trans-



Note: The figure shows SEEG's five operating regions, each centered around the city from which it takes its name.
Source: SEEG annual reports.

parently. Vivendi won the concession tender on the basis of a proposed 17.25 percent price reduction for water and electricity service. It later acquired 51 percent of SEEG's shares and simultaneously signed the 20-year concession contract. A public offering of SEEG's shares followed, organized by banks.

Designing the contract

SEEG's concession contract is interesting in several respects. It is mainly an output-driven contract, defining quality requirements and coverage targets as the main drivers of private investment. The private operator is obligated to invest a minimum of US\$135 million in rehabilitation (60 percent in water). Besides operating and renewing the network, SEEG's main contractual obligation is to expand it to previously unconnected areas, by increasing the density of the network in centers where it already exists or expanding the service to new centers. It has informally committed to investing another US\$130 million over the life of the contract, mainly in increasing network density and extending the network. In addition, given the size of the investment needs, the government has chosen to take part in major network investments.

The contract includes regional coverage targets defined by the percentage of the population with access to the network as well as a list of new centers to be served (30 for water and 21 for electricity). The targets reflect the characteristics of SEEG's systems: for electricity, there are three interconnected networks to cover the main urban areas (powered by hydroelectric plants), while the rest are isolated centers served by small thermal generators. For water, centers are served from local water points.

Some aspects of the contract remained undefined at award. For example, no dedicated regulatory body was set up, so the contract was administered by a government ministry. When the government entered the concession contract, it lacked key information. Rather than invest time in gathering information beforehand, the government decided to set aside a transition period of two and a half years during which it would agree on key contractual documents with the company. During that period the company would not be subject to any penalty relating to performance. Five years down the line, however, both parties have clearly overshot the transition period, and important regulatory tools are still being prepared or negotiated (such as the inventory of assets, the cost accounting system, and annexes setting service quality standards).

The contract retained a single national tariff for residential customers—the backbone of a national utility with cross-subsidization. But it differentiated medium-voltage electricity tariffs to reflect the large variations in production costs (medium-voltage tariffs for isolated centers are roughly twice those on the interconnected network, to reflect the high costs of thermal generation compared with hydroelectric generation). In addition, the operator can modify the tariff structure every year as long as certain tariffs (including social tariffs) do not increase by more than 1 percent a year.

The contract provides flexibility on service standards, to avoid overburdening the company with unnecessary requirements in rural areas and to keep costs down. However, the ministry has been reluctant to grant more flexibility in subsequent negotiations. Within exclusive service areas water and electricity resellers are tolerated, but

Table Electricity coverage rates: targets and performance (percentage of population with electricity connection)

1 Region	Observed rate in 1993	Target rate for 2000	Actual rate in 2000	Target rate for 2015
Libreville network	68.50	73	74	83
Franceville network	63.50	67	90	80
Louetsi network	49.60	54	76	66
Port-Gentil network	81.00	83	91	91
Isolated centers served in 1996	33.00	65	89	60
Isolated centers to be served	0	15	0	54

Note: The regions in the table correspond to those used in the concession contract to define coverage targets, which are based on areas around existing networks or isolated centers.
Source: SEEG.

Table Water coverage rates: targets and performance (percentage of population with water connection)

2 Region	Observed rate in 1993	Target rate for 2000	Actual rate in 2000	Target rate for 2015
Libreville network	49.30	53	62	70
Franceville network	38.60	43	58	65
Port-Gentil network	37.70	43	50	63
Isolated centers served in 1996	33.00	38	40	60
Isolated centers to be served	0	12	7	54

Note: See note to table 1.
Source: SEEG.

neither the operator nor the ministry has tried to develop arrangements with these small-scale operators to speed service expansion. The only significant interaction SEEG has with small business is through local vendors selling prepaid cards for electricity services in isolated villages. SEEG uses two types of prepaid meters for electricity service: one for urban areas, where customers obtain a code from the nearest SEEG branch to add to their credit, and one for rural areas, where customers purchase prepaid cards from local vendors to recharge their meters. Prepaid metering cuts the costs of customer management substantially for SEEG. But the benefits of this system could be even greater if it were also used for water service.

Improving performance and coverage

Gabon can be seen as a relatively successful case of private sector participation, one in which strong government commitment has been key. Although the government was initially slow to pay its bills, undercutting the company's per-

formance, it has been a good payer since signing a debt moratorium in 1999.

The private operator has consistently improved service quality and reduced tariffs substantially. It has already made 80 percent of the contractually required investments, self-financing all of them. It has posted good profits since the start of its operations and paid its shareholders higher dividends every year (dividends rose from a contractually guaranteed 6.5 percent of the share price in the first year of operations to 20 percent in 2000). Finally, the company has managed to become truly independent in the face of potential political pressures, as demonstrated by the improved payment record of government customers.

The private operator is gradually fulfilling one of the main objectives of the contract, to expand service in small towns and rural areas. It has met or exceeded its targets for 2000 (and in some cases those for 2015) in all regions except the centers that were previously unserved (tables 1 and 2). In centers where it missed the targets, the

reason was often delays in government investments, either in roads (indispensable for reaching the villages) or in electricity transmission networks. Coverage targets have provided effective incentives for quickly increasing network density in newly served areas. The company has carried out active commercial campaigns in small villages to encourage people to connect and has developed innovative technologies (such as prepaid meters) to reduce the costs of providing service to these difficult-to-reach areas.

In rural areas the private operator offers service far superior to that provided by the government outside SEEG's service area and at prices that remain affordable because of the high degree of cross-subsidization. Although the government is nominally responsible for providing service in rural areas, lack of financial resources and poor choice of technology have led to ineffectiveness.

How multi-utility provision can improve rural service

For Gabon multi-utility provision appears to have brought several benefits, although they are difficult to quantify precisely and the dynamics are not yet fully understood. First, combining water and electricity service allowed cost reductions through the sharing of resources. These cost reductions were especially evident at the center, with shared headquarter functions and centralized planning and operations. At the regional level commercial functions can be shared, and so can some technical functions if personnel can be trained to manage both water and electricity systems.

Second, multi-utility provision has allowed the creation of a platform for more integrated investment planning and coordination with key stakeholders (such as ministries and communities). And it has placed SEEG in a stronger position to negotiate prices in the notoriously uncompetitive local markets for construction services, enabling it to reduce contracting costs by about 30 percent.

Finally, since SEEG is mostly an electricity business, cross-subsidization can help bring the water sector up to speed with the electricity sector. The water sector, a lower revenue generator, often lags behind in investment. But even though water accounts for only 15 percent of

SEEG's revenue, it will receive 60 percent of pledged investments over the life of the contract. So water customers benefit from both lower tariffs and greater investment.

In villages and towns connected to electricity but not to water (often the case, since electricity tends to precede water), the benefits can be substantial. But in some places the benefits have been limited by lack of coordination with the government, because while water service in a village may be managed by the ministry, electricity service may be SEEG's responsibility.

Several factors have made multi-utility provision possible at a national level. During periods of public ownership SEEG was already integrated, and when it was privatized a single contract was signed for both services. In addition, the system is relatively small, so combining the services proved crucial for achieving economies of scale and scope, particularly in rural areas. Moreover, the potential for competition appeared small, particularly in electricity generation.

Gabon's experience with a multi-utility concession offers two lessons. First, when services are already integrated, the benefits (and costs) of the integration should be closely reviewed, to avoid jumping too quickly to the conclusion that unbundling is preferable. A more detailed cost-benefit analysis could help in understanding the merits of combining utilities. Second, if services are separated at the national level, integrated contracts with small private operators could be signed at the local level to make the most of multi-utility provision in rural areas. Innovative technologies (such as prepayment) and community relations can be used to make rural service provision both more sustainable and more attractive for private operators.

Note

1. The International Finance Corporation (IFC) acted as transaction adviser.

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