

Public disaster and private gain

– The proposed privatisation of electricity in Nigeria

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Introduction

This report is a critical examination of the proposals to privatise Nigeria's electricity system. It draws on the most recent reports on energy in Africa and on global research carried out by the PSIRU.

The first part considers whether the government's plans are supported by empirical evidence. It examines the data on experience elsewhere in Africa and the world on the key issues:

- investment in electricity systems by public and private sector
- the record of attempts at privatisation of distribution companies
- the impact of privatised generation through independent power producers (IPPs)
- policies of other major developing economies on liberalisation and privatisation of the sector

The second part examines the experience so far with attempts to introduce private companies into the electricity sector into Nigeria. These include a series of corruption cases, and extensive government guarantees for private companies. It also looks at the role of the World Bank in supporting guarantees for private companies.

The final section sets out the alternative approach using public finance from oil and gas revenues, which could deliver universal access within five years.

1. Lessons from experience

1.1. No private investment in extensions

The single greatest challenge in Nigeria is to make the investments needed to provide access to all households and businesses. But two major new official reports published in 2010 make clear that private companies do not, and will not, provide any significant proportion of investment in electricity in Africa.

A World Bank study of investment in electricity and other infrastructure in Africa shows that private companies have provided only about 10% of total investment in the sector – and nearly all of that is in IPPs, not in extensions to the system. The majority of investment comes from public finance, followed by aid from donor countries and development banks.¹ The new IEA report goes further, arguing that “in most developing countries upfront public investment in developing national and local capacity is the most important ingredient” for attracting any private investment at all – and even then it will only take place “where a commercial return can be reliably earned on the investment”.²

These confirms the results of previous World bank reports in 2005 and 2006 reports which found that only 10% of Africa's investment needs for infrastructure have been financed by the private sector, and neither private sector participation nor regulation makes any significant contribution to the extension of access to network services.³

Table 1. Public sector leads investment in electricity in Africa - private sector very small

Country group	Investment (\$ billions)				Operational expenditure (\$ billions)	Total investment and operational	Public sector as % of total
	Public sector	Aid	Private sector	Total			
Total sub-Saharan Africa	2.4	1.8	0.5	4.6	7.0	11.6	81%
<i>of which:</i>							
- Resource-rich countries	1.2	0.8	0.3	2.3	1.6	3.9	72%
- Middle income countries	0.8	0.03	0.01	0.8	2.7	3.5	99%
- Low-income countries	0.4	0.9	0.2	1.6	2.6	4.0	75%

Source: World Bank/AFD 2010 Africa's Infrastructure 2010 Table 8.3 p.186, and PSIRU calculations. Figures may not add exactly due to rounding. http://www.infrastructureafrica.org/aicd/system/files/AIATT_Consolidated_smaller.pdf

Extending systems requires the use not only of public finance but also of social policies. The World Bank report says about half of the non-electrified urban population consists of extremely poor people living in slums with insecure legal tenure. Delivering connections thus requires government action, with social policies to subsidise high connection charges. Private companies will not risk expanding into such areas however because they would face “power theft” through illegal connections by the poor.

Low coverage in cities also affects the prospects for the rural poor: the World Bank study points out that “Countries with seriously underdeveloped generation capacity and tiny urban customer bases are not well placed to tackle rural electrification... because of the lack of a basis for cross-subsidization.” In such countries, including Nigeria, government tax revenues are even more crucial for financing extensions. Privatisation makes either approach much more difficult.⁴

The report also says that experience shows that a centralised public sector utility – such as PHCN used to be – delivers much better results in rural electrification than fragmented or privatised approaches:

“countries that have taken a centralized approach to electrification, with the national utility responsible for extending the grid, have been more successful than those that followed decentralized approaches, where a rural electrification agency attempted to recruit multiple utilities or private companies into the electrification campaign.”⁵

The Nigerian government is doing the precise opposite of what is known to work best for creating universal access to electricity, by dissolving an integrated public utility in favour of privatised companies.

1.2. Privatisation of distributors and the disastrous Umeme model

In Africa, the main forms of privatisation of distribution companies have been by lease or management contracts. By definition, these contracts do not expect or require any investment in extension by the private company. These contracts have experienced a very high cancellation rate of 27%, and the majority of other contracts have expired without being renewed.

The main continuing example in Africa is Umeme, the privatised distribution company from Uganda, which is now majority owned by a UK private equity investor and partly by the World Bank. It was privatised in 2005 following criticism of the old state utility, the Uganda Electricity Board (UEB), but the privatisation has proved to be a disaster. An official report in 2009 concluded that Umeme had “defrauded the government of Uganda to the tune of Shs 452 billion (USD \$197 million) over the last four years by over-declaring losses”; 2,000 consumers have brought a lawsuit against Umeme for over-charging, and blame privatisation: “consumers are being exploited more since the Uganda Electricity Board (UEB – the former public utility) was disbanded in 2001”; Umeme was rated as one of the most corrupt institutions in the country by a Transparency International survey; and the regulator has said that Umeme’s contract “would have been terminated a long time ago”, but a punitive compensation clause in the contract means that Ugandan consumers “are stuck with Umeme for the next 15 years since the 20-year contract was signed only five years ago!”⁶

Actis, the company which owns Umeme, described the privatisation process in Nigeria as ‘fantastic’.⁷ The Nigerian government’s proposals would reproduce the Umeme model throughout Nigeria.

Table 2. Electricity distribution privatisations in Africa

	Number	Number cancelled	% cancelled
Management or lease contracts	17	4	24%
Concession contracts	16	5	31%
Total	33	9	27%

Source: World Bank/AFD 2010 Africa’s Infrastructure 2010 Table 4.2 p.111

http://www.infrastructureafrica.org/aicd/system/files/AIATT_Consolidated_smaller.pdf

1.3. IPPs: small contribution, expensive, and corrupt

Most of the private sector investment in Africa relates to investment in generation, through independent power producers (IPPs). These have been encouraged by the World Bank, donors and many others since the early 1990s. But after 20 years they still make very little contribution to the power generation needs of Africa: a comprehensive report in September 2010 of IPPs in Africa states that they “represent a small fraction of total generation capacity and have mostly complemented incumbent state-owned utilities.”⁸

The World Bank study also describes them as “relatively costly because of technology choices, procurement problems, and currency devaluations”.⁹ IPPs use gas generation, which is not as cheap or clean as hydro plants, for example: “This is why in countries like Ghana tariffs increased steeply after the introduction of thermal generation with IPPs.” (Dagdeviren 2009)¹⁰

IPPs depend on long-term power purchase agreements (PPAs), lasting for 20-30 years, under which the government or a state agency guarantees to buy the output at an agreed price. The profits obviously depend on the price levels written into the contract, so there is a huge incentive for corruption. **There have been many examples of corrupt and overpriced IPPs in African countries, including Kenya, Uganda and Tanzania, as well as the scandal of the Enron/AES power barges in Nigeria itself, and in many other countries including Pakistan and Indonesia.**¹¹

1.4. Liberalisation rejected by most developing countries

Most of the largest developing economies have rejected, frozen or reversed liberalisation and unbundling. Only Argentina introduced full-scale privatisation and liberalisation, under the advice of the IMF in the 1990s: and in 2000, the country’s economy collapsed. Another large African country, Egypt, has followed a similar path. It unbundled the state utility, but the regional companies were never privatised, and the state is now making large public investment in new generating capacity because it is cheaper than IPPs.¹² Even in high income countries in the north, full-scale unbundling and liberalisation has produced a consistent pattern of problems, including consumer opposition, lack of competition, higher prices, ‘gaming’, oligopoly, lack of investment, and lack of innovation.¹³

The Nigerian government is acting contrary to a strong global trend in seeking to privatise its electricity distribution and generation companies, and expecting to benefit from some form of liberalisation. In any case, the proposals make no serious attempt even to create competitive conditions.

Table 3. Halting electricity liberalisation in largest developing economies

2008	GDP (USD \$bn.)	Pop. (m.)	Liberalised and privatised?	
China	3,860	1,326	Very limited	State owns transmission, distribution, most generation
Brazil	1,613	192	Partial, halted	Unbundling frozen in 2002.
India	1,217	1,140	Very limited	States unbundle, retain public ownership. Very few IPPs, part privatisation of central state electricity company
Mexico	1,086	106	No	Single integrated state company.
Korea, South	929	49	No	Integrated state company.
Indonesia	514	228	No	Integrated state company
Iran	385	72	No	Single integrated state company Tavanir. ¹⁴
Argentina	328	40	Yes	Unbundled under IMF conditionalities in 1990s.
Venezuela	314	28	No (reversed)	Renationalised private distributor
South Africa	277	49	No	Integrated state company, municipal utilities
Thailand	261	67	No	Integrated state company

Source: Hall 2009¹⁵

2. Nigeria

2.1. Background: electricity restructuring in Nigeria

Under the Electric Power Sector Reform Act 2005 the national electricity company Power Holding Company of Nigeria (PHCN) was unbundled into 18 separate companies, in preparation for privatization:

- 1 Transmission Company of Nigeria
- 7 Generation Companies: Egbin, Delta , Afam , Sapele , Kainji , Jebba, Shiroro
- 11 Electricity Distribution Companies (EDCs): Kaduna, Kano, Yola, Ibadan, Eko, Jos, Enugu, Benin, Port Harcourt, Ikeja, Abuja.

The Act also established the Nigerian Electricity Regulatory Commission (NERC); the Rural Electrification Agency (REA) to fund extensions in rural areas; the National Electricity Liability Management Company (NELMCO); and the Nigerian Bulk Electricity Trading Plc (Nibet). The Act also provided for the establishment of a Power Consumer Assistance Fund (POCAF), to subsidize poor consumers, but it was never clarified how this should be funded, and it has not been set up.¹⁶

The process of unbundling and privatising the state-owned utility has produced a series of corruption trials and allegations associated with funds being misused by owners of private companies.

2.2. Corruption and private interests in electricity in Nigeria

2.2.1. Corruption and IPPs

Nigeria's own experience with IPPs is of companies profiting from extortionately expensive power purchase agreements while very little electricity is actually delivered.

In 1999 Enron set up a 290MW IPP at Egbin Power Station in Lagos, with a 13 year power purchase agreement (PPA) with Lagos State. This deal formed part of the prosecutions in the USA for fraud against former Enron executives.¹⁷ In January 2001 Enron sold the project to another USA company, AES, and a Nigerian partner, YF Power, part of the Yinka Folawiyo Group.¹⁸ In 2006, the Peoples Democratic Party (PDP) called for on the Economic and Financial Crimes Commission (EFCC) to probe the Lagos/AES power project claiming that it has cost the state over \$500 million.¹⁹ Payments under the contract have caused massive losses for PHCN, and there have been continuing disputes between PHCN and Lagos State over who is responsible.²⁰

Payments to the existing IPPs already absorb the total revenues of all the distribution companies. PHCN power stations could generate more than they do, more cheaply than the IPPs, but the IPPs have priority because of the contractual obligations. This prevents the government from using the cheapest available electricity.²¹ None of the 34 companies given privileged licenses to set up IPPs in 2005 has so far generated a single megawatt.²²

2.2.2. Corruption and abolition of rural electrification agency

The Rural Electrification Agency (REA) was set up under the 2005 Act to fund the extension of connections in rural areas. Leading officials and politicians are now facing trial over charges of defrauding the REA of over NGN 5.2 billion (USD \$35 million) through contracts for grid extension or solar electrification which "were used as conduit pipes with which funds of the Rural Electrification Agency were siphoned and were awarded to companies either not prequalified to be awarded the contract or were phony or existing companies".²³ The rural electrification agency has been abolished, and the function is being re-assigned to the distribution companies, which will be privatised.²⁴

2.2.3. Prosecution of regulator over contracts

The former Chairman of the Nigerian Electricity Regulatory Commission (NERC), Dr. Ransome Owan, and his six commissioners were in 2009 removed from office and charged with 197 counts of fraud involving misappropriating money through fictitious contracts.²⁵ The cases were dropped in October 2010 by the government justice minister, Bello Adoke. Press reports stated that "The termination of the case is believed to be connected with the Federal Government's commitment to power sector reform".²⁶ The minister has also

dropped other corruption prosecutions, described in press reports as “air tight” cases, and attacked Nigeria’s anti-corruption agency, the Economic and Financial Crimes Commission (EFCC).²⁷

2.2.4. Government adviser with vested interest

The process of selling electricity companies, or licensing new IPPs, is always fraught with risks of corruption (see above). One form this can take is for a government to give a privileged position to its own friends, and this can be seen in the process adopted by the current president, whose special adviser on the power sector, Barth Nnaji, himself has commercial vested interest in the privatisation:

“His company, Geometric Power Limited, is one of the few private sector firms licenced to build independent power plants and sell the output to PHCN. Geometric, like the horde of others licensed along with it, is yet to add even one megawatt of electricity to the national grid. Yet its proprietor is charged with the responsibility of superintending the sale of Nigeria's crippled power behemoth to the private sector. Ironically, the referee is one of the players in the privatisation tournament. Under that circumstance, someone would be tempted into match-fixing. No one can trust government intention with such appointment.”²⁸

The government policy of privatisation risks creating even greater opportunities for corruption.

2.3. Guarantees and public finance

The new private owners are being provided with layers of guarantees and support to protect their profits. In the first place, electricity prices paid by consumers are already due to be increased by two-thirds, from 6 to 10 naira per KWh.²⁹

The distributors and other assets of PHCN will be sold after the government has taken over some of the major liabilities, through the special vehicle Melmco, including pensions and other contractual obligations.

The state-owned company, Nibet Plc, will act as a bulk purchaser and bulk seller of electricity. It will take over obligations under existing and new power purchase agreements with IPPs, and effectively promise to buy the output of all the IPPs, guaranteed by the tax revenues of the government. The Finance Minister explained that : “*The IPPs want to ensure that the single buyer is a credit-worthy entity.*”³⁰ In addition, the IPPs revenue is further guaranteed by the World Bank (see below).

It is also clear that the government itself does not expect any significant investment from the private companies who will take over the assets of PHCN if privatisation goes ahead. The government and the central bank of Nigeria (CBN) have stated that they want to use N400 billion (USD\$2.7 billion) of pension fund assets – about one-fifth of the total N2 trillion assets of Nigerian pension funds – to ‘encourage foreign investment in the power sector’. The Central Bank’s role will likely be to “provide the comfort and the guarantees to allow the Pension Funds Administrators to release the money for viable power projects”.³¹

If Nigerian pension funds invest \$2.7 billion, that would represent nearly half the total money needed to provide universal access to electricity in Nigeria. Since the government itself is spending about NGN 130 billion (USD \$861million) on the sector in 2009, this means that **within 4 years the pension funds and government could invest more than enough to provide universal connection throughout Nigeria, according to the IEA (see below) – without any investment from the private sector.**³²

2.4. World Bank

The World Bank is providing over three-quarters of a billion dollars (\$781 million) worth of support for the restructuring and privatisation, through two projects. The first is the \$181 million Nigeria National Energy Development Project has supported restructuring since 2005, and was extended in June 2010, under a report which completely failed to mention the corruption scandal which involved the REA funds.³³ The second, larger, project is the \$600 million Electricity and Gas Improvement Project. This includes a loan of \$200 million for investment in distribution and transmission, which it estimates will provide a 25% rate of return to the distributors – a benefit which will be enjoyed by private companies after privatisation. It also includes \$400m worth of guarantees ‘in support of gas supply and aggregation agreements of Shell Petroleum Development Company, Chevron Nigeria Ltd. and other oil companies with PHCN’. In effect, its main

purpose is to guarantee the revenues of the IPPs run by these multinational companies. The project report notes the problem of corruption and states that ‘the overall risk rating for this proposed project is high’.³⁴

The World Bank’s country director has ‘commended Nigerian government for its laudable reform programme in the power sector’, despite the manifest dangers of corruption involved in the government’s plans. The World Bank remained completely silent about the government’s decision to drop the corruption prosecution against the former regulator.³⁵

3. The alternative: universal access in 10 years using 0.6% of oil revenues

Instead of privatising the system, Nigeria can immediately start expanding its electricity system to provide universal access, using public finance. An IEA economist, Fatih Birol, restated in September 2010 that if Nigeria spent just a small fraction: “of its oil and gas revenues on energy power and electricity, they would solve this problem immediately.... If left to the markets they will never get access to electricity.”³⁶

The IEA first stated this in its World Energy Outlook in 2008. The report estimated that the total cost of providing the networks and power stations necessary for universal access to electricity – for all households in Nigeria – is \$6.09 billion. The IEA also estimated that the oil and gas royalties that Nigeria can expect over the next two decades averages over \$100 billion per year. The IEA assumed that the cost of investing in universal access would be spread over 24 years, and on this basis the cost for Nigeria would be only 0.25% of annual oil revenues each year.³⁷ But the investment could be made over a much shorter timescale. By using only 0.6% of oil revenues per year, Nigeria could complete the investment in just 10 years.

Nigeria could connect its entire population within a decade, if it keeps the system in public hands.

Table 4. Affordability of universal electricity access for Nigeria

		\$ billion	Investment required as % of revenues from oil and gas royalties each year
Total investment required for universal electricity access		6	
Oil revenues 2006-2030	24 years	2441	0.25%
Oil revenues 2010-2020	10 years	1020	0.6%

Source: WEO 2008: Chapter 15 “Prospects in oil- and gas- exporting sub-Saharan African countries” table 15.6, figure 15.6 http://www.iea.org/weo/database_electricity/WEO2008-Chapter%2015.pdf; and PSIRU calculations

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