UPBEAT

Utility Performance and Behavior in Africa Today

ANNEX A

DESCRIPTION OF UPBEAT DATABASE AND SUPPORTING MATERIALS

A

WORLD BANK GROUP
ESMAP
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ANNEX A

Description of UPBEAT database and supporting materials

A.1 DESCRIPTION OF UPBEAT DATABASE

The eight tables in this section provide basic information on the UPBEAT project. Table A.1 identifies the utilities covered by the project by country, name, and type. Table A.2 describes the data sources. Tables A.3 through A.7 outline the indicators used in the UPBEAT assessment in the categories of financial performance, operational performance, and transparency and accountability. Table A.8 lists the supporting data collected for each utility by link in the value chain.

TABLE A.1 Utilities covered by UPBEAT

COUNTRY	UTILITY NAME	TYPE
Angola	Empresa Nacional de Distribução de Electricidade (ENDE) Empresa Pública de Produção de Electricidade (PRODEL) Empresa Rede Nacional de Transporte de Electricidade (RNT)	D G T
Benin	Société Béninoise d'Energie Electrique (SBEE)	VIU
Botswana	Botswana Power Corporation (BPC)	VIU
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	VIU
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	VIU
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	VIU
Cameroon	Eneo Cameroun S.A. (Eneo)	VIU
Central African Rep.	Energie Centrafricaine (ENERCA)	VIU
Chad	[Chad] Société Nationale d'Electricité (SNE)	VIU
Comoros	Electricité d'Anjouan (EDA) Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	VIU VIU
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE) Société des Energies de Côte d'Ivoire (CIENERGIES)	VIU VIU
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	VIU
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	VIU
Eritrea	Eritrean Electricity Corporation (EEC)	VIU

TABLE A.1, *continued*

COUNTRY	UTILITY NAME	TYPE
Eswatini	Eswatini Electricity Company (EEC)	VIU
Ethiopia	Ethiopian Electric Power (EEP) Ethiopian Electric Utility (EEU)	G/T D
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	VIU
Gambia	Gambia Water & Electricity Company (NAWEC)	VIU
Ghana	Electricity Company of Ghana (ECG) Ghana Grid Company (GRIDCo) Volta River Authority (VRA)	D T G
Guinea	Electricité de Guinée (EDG)	VIU
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	VIU
Kenya	Kenya Electricity Generation Company (KenGen) Kenya Electricity Transmission Co. (KETRACO) Kenya Power and Lighting Company (KPLC)	G T T/D[1]
Lesotho	Lesotho Electricity Company (LEC)	VIU
Liberia	Liberia Electricity Corporation (LEC)	VIU
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	VIU
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	VIU
Mali	Energie du Mali (EDM)	VIU
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	VIU
Mauritius	Central Electricity Board (CEB)	VIU
Mozambique	Electricidade de Moçambique (EDM)	VIU
Namibia	Central North Regional Electricity Distributor (CENORED) Erongo Regional Electricity Distributor (ErongoRED) NamPower Northern Regions Electricity Distributor (NORED)	D D VIU D
Niger	Société Nigérienne d'Electricité (NIGELEC)	VIU
Nigeria	Abuja Electricity Distribution Company (AEDC) Benin Electricity Distribution Company (BEDC) Eko Electricity Distribution Company (EKEDC) Enugu Electricity Distribution Company (EEDC) Ibadan Electricity Distribution Company (IBEDC) Ikeja Electricity Distribution Company (Ikeja) Jos Electricity Distribution Company (Jos) Kaduna Electricity Distribution Company (Kaduna) Kano Electricity Distribution Company (KEDCO) Port Harcourt Electricity Distribution Company (PHED) Transmission Company of Nigeria (TCN) Yola Electricity Distribution Company (YEDC)	D D D D D D D D D D T D
Rwanda	Energy Utility Corporation Limited (EUCL)	VIU
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	VIU
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	VIU
Seychelles	Public Utilities Corporation (PUC)	VIU
Sierra Leone	Electricity Distribution and Supply Authority (EDSA) Electricity Generation and Transmission Company (EGTC)	D G/T
South Africa	ESKOM	VIU
Sudan	Sudanese Electricity Distribution Company (SEDC) Sudanese Electricity Transmission Company (SETC) Sudanese Hydro and Renewable Energy Generation Company (SHREG) Sudanese Thermal Power Generating Company (STPGC)	D T G G
Tanzania	Tanzania Electric Supply Company (TANESCO)	VIU
Togo	Electric Power Company of Togo (CEET)	VIU

TABLE A.1, *continued*

COUNTRY	UTILITY NAME	TYPE
Uganda	Uganda Electricity Generation Company (UEGCL) Uganda Electricity Transmission Company (UETCL) Umeme	G T D
Zambia	Copperbelt Energy Corporation (CEC)	VIU
Zambia	Zambia Electricity Supply Corporation (ZESCO)	VIU
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC) Zimbabwe Power Company (ZPC)	T/D G

Note: VIU: Vertically integrated utility; G: Generation-only utility; T: Transmission-only utility; D: Distribution-only utility; G/T: Generation-transmission utility; T/D: Transmission-distribution utility.

1. While KPLC currently operates both transmission and distribution segments of the existing network, its main focus is on distribution and retail (KPLC serves over 7 million customers). As such, operational performance indicators of KPLC are collected for distribution segment only; KPLC's financial and operational performance is compared to performance of distribution-only utilities.

TABLE A.2 Data sources and hierarchy

Financial performance • Audited IFRS or OHADA financial statements • Audited financial statements using other standards • Unaudited financial statements • Other reports
Operational performance • Technical statistics published by utility • Performance monitoring data published by regulator • Utility accounts / annual report • Other utility / industry reports
Transparency • Utility annual report • Utility information published on utility's website • Other utility reports
Supporting information • Technical statistics published by utility • Performance monitoring data published by regulator • Utility accounts / annual report • Other utility / industry reports

TABLE A.3 Financial performance indicators

PERFORMANCE CATEGORY	APPLICABLE PARTS OF VALUE CHAIN	INDICATORS
Cost recovery	G-T-D	Operating cost recovery—Cash revenue basis Operating cost recovery—P&L basis Operating cost recovery—P&L basis, without subsidies Operating plus debt service cost recovery—Cash revenue basis Operating plus debt service cost recovery—P&L basis Operating plus debt service cost recovery—P&L basis, without subsidies
Liquidity	G-T-D	Receivable days, accounts receivable Payable days, accounts payable Current ratio Debt service coverage ratio
	D	Collection rate
Capital structure	G-T-D	Debt-to-assets ratio Maturity matching Implied cost of debt
Profitability	G-T-D	Net profit margin EBITDA margin

TABLE A.4 Definitions of financial performance indicators

INDICATOR CATEGORY	INDICATOR NAME	UNITS	DEFINITION	APPLICABLE PART OF VALUE CHAIN
COST RECOVERY	Operating cost recovery (cash collected), including subsidies	%	Total revenue plus operating subsidies minus cashflow from change in net trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) minus bad debt expense plus cashflow from change in deferred revenue from prepaid sales, all divided by operating costs (cost of sales + other operating expenses—bad debt expense + income tax)	G-T-D
	Operating cost recovery (billed revenue), including subsidies	%	Total revenue plus operating subsidies, all divided by operating costs (cost of sales + other operating expenses—bad debt expense + income tax)	G-T-D
	Operating cost recovery (billed revenue), excluding subsidies	%	Total revenue divided by operating costs (cost of sales + other operating expenses – bad debt expense + income tax)	G-T-D
	Operating and debt service cost recovery (cash collected), including subsidies	%	Total revenue plus operating subsidies minus cashflow from change in net trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) minus bad debt expense plus cashflow from change in deferred revenues on prepaid sales, all divided by operating costs (cost of sales + other operating expenses—bad debt expense + income tax) plus debt service (interest expense + repayment component of debt servicing cashflows)	G-T-D
	Operating and debt service cost recovery (billed revenue), including subsidies	%	Total revenue plus operating subsidies, all divided by the sum of operating costs (cost of sales + other operating expenses—bad debt expense + income tax) plus debt service (interest expense + repayment component of debt servicing cashflows)	G-T-D
	Operating and debt service cost recovery (billed revenue), excluding subsidies	%	Total revenue divided by the sum of operating costs (cost of sales + other operating expenses – bad debt expense + income tax) plus debt service (interest expense + repayment component of debt servicing cashflows)	G-T-D

TABLE A.4, *continued*

INDICATOR CATEGORY	INDICATOR NAME	UNITS	DEFINITION	APPLICABLE PART OF VALUE CHAIN
LIQUIDITY	Collection rate	%	Total revenue minus bad debt expense minus cashflow from change in gross trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) plus cashflow from change in deferred revenues on prepaid sales, all divided by total revenue	D
	Accounts receivable	%	Gross trade receivables divided by total revenue	G-T-D
	Receivable days	Days	Gross trade receivables divided by total revenue times 365	G-T-D
	Accounts payable	%	Trade payables divided by cost of sales	G-T-D
	Payable days	Days	Trade payables divided by cost of sales times 365	G-T-D
	Current ratio	Ratio	Current assets divided by current liabilities	G-T-D
	Debt service coverage ratio	Ratio	Pre-financing cashflows (cashflow from operations + cashflow from investment activities) divided by debt service (interest component of debt servicing cashflows + repayment component of debt servicing cashflows)	G-T-D
CAPITAL STRUCTURE	Debt-to-assets ratio	Ratio	Debt (current borrowings + non-current borrowings + bank overdraft) divided by total assets	G-T-D
	Maturity matching	Ratio	Non-current assets divided by the sum of non-current liabilities plus total equity	G-T-D
	Implied cost of debt	%	Interest expense divided by debt (current borrowings + non-current borrowings + bank overdraft)	G-T-D
PROFITABILITY	Net profit margin	%	Net profit after tax divided by total revenue	G-T-D
	EBITDA margin	%	Earnings before interest, taxes, depreciation, and amortization divided by total revenue	G-T-D

TABLE A.5 Operational performance indicators

PERFORMANCE CATEGORY	APPLICABLE PARTS OF VALUE CHAIN	INDICATORS
RELIABILITY	G-T-D	Existence of management information system (MIS)
	G	Availability of solid fuel plants Availability of liquid fuel plants Availability of natural gas plants Availability of hydro plants Availability of non-hydro renewables
	T	SAIDI for transmission SAIFI for transmission
	D	SAIDI for distribution SAIFI for distribution Existence of revenue protection plan (RPP)
EFFICIENCY	T	Transmission losses
	D	Distribution losses Time to connect
	T-D	System losses

Note: MV = Medium Voltage

TABLE A.6 Definitions of operational performance Indicators

INDICATOR CATEGORY	INDICATOR NAME	UNITS	DEFINITION	APPLICABLE PART OF VALUE CHAIN
RELIABILITY	Availability (solid) Availability (liquid) Availability (gas) Availability (hydro) Availability (renewables)	%	Hours generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated	G
	SAIDI (transmission)	Hours	Sum of number of customers affected by an outage times duration of the outage, divided by total number of customers connected	T
	SAIFI (transmission)	Interruptions	Sum of number of customers affected by an outage divided by number of customers connected	T
	SAIDI (distribution)	Hours	Sum of number of customers affected by an outage times duration of the outage, divided by total number of customers connected	D
	SAIFI (distribution)	Interruptions	Sum of number of customers affected by an outage divided by number of customers connected	D
EFFICIENCY	Transmission losses	%	Total losses on the transmission network as reported by the utility	T
	Distribution losses	%	Total losses on the distribution network as reported by the utility	D
	System losses	%	Total losses on the electricity network as reported by the utility; if the utility reports transmission and distribution losses separately, system losses are calculated as [1-((1-transmission losses)*(1-distribution losses))]	T-D
	Time to connect	Days	Time required to obtain an electricity connection, in days	D

TABLE A.7 Transparency and accountability indicators

INDICATOR CATEGORY	INDICATOR NAME	UNITS	DEFINITION	APPLICABLE PART OF VALUE CHAIN
	Total score	%	Share of all indicators reported: number of all reported indicators divided by total number of indicators under transparency and accountability dimension	G-T-D
PERFORMANCE MANAGEMENT AND REPORTING	Category score	%	Share of indicators reported in the category of performance management and reporting: number of reported indicators divided by total number of category indicators	G-T-D
	Publicly available performance agreement with government or regulator	1 (YES)/ 0 (NO)	The utility has a publicly available performance agreement with the government or regulator, e.g., performance agreement for an SOE with its oversight ministry, a private license or concession agreement, or a performance-based regulation agreement.	G-T-D
	Publicly available regular performance reports from regulator	1 (YES)/ 0 (NO)	The regulator publicly reports the performance of the utility, e.g., publication of an annual performance report or quarterly key performance indicators (KPI) tracking on its website. Reporting on quality of service is a minimum requirement.	G-T-D
	Financial statements published on website	1 (YES)/ 0 (NO)	Financial statements, completed to IFRS/OHADA standards, are published on the utility's website within 12 months of the end of the fiscal year.	G-T-D
	Annual report published on website	1 (YES)/ 0 (NO)	The utility's annual report is published on its website within 12 months of the end of the fiscal year.	G-T-D
	Financial statements use IFRS/OHADA; independently audited	1 (YES)/ 0 (NO)	The utility's financial statements are independently audited by an external party: internationally recognized audit firms, local firms appointed by the state auditor, or the state auditor itself.	G-T-D
	Audit opinion unqualified	1 (YES)/ 0 (NO)	The audit of the utility's financial statements finds that the statements are fairly and appropriately presented, without exception or qualification.	G-T-D
	Annual report covers actions taken to address cybersecurity	1 (YES)/ 0 (NO)	The utility's annual report describes actions being taken to address cybersecurity.	G-T-D
	Up-to-date corporate strategy publicly available	1 (YES)/ 0 (NO)	The utility has an up-to-date corporate strategy that is publicly available.	G-T-D
	Annual report confirms performance management system in place	1 (YES)/ 0 (NO)	The utility's annual report confirms the utility has a performance management system in place. At a minimum, the system should set individual goals at the company or senior management level.	G-T-D
	Annual report includes relevant operational and financial KPIs	1 (YES)/ 0 (NO)	The utility's annual report includes relevant operational and financial KPIs.	G-T-D

TABLE A.7, *continued*

INDICATOR CATEGORY	INDICATOR NAME	UNITS	DEFINITION	APPLICABLE PART OF VALUE CHAIN
INTEGRITY AND INTERNAL CONTROLS	Category score	%	Share of indicators reported in the category of integrity and internal controls: number of reported indicators divided by total number of category indicators	G-T-D
	Annual report includes a governance section	1 (YES)/ 0 (NO)	The utility's annual report includes a governance section. This must (1) describe the board's charter; (2) confirm that the board operates under a code of conduct and conflict of interest policy; and (3) confirm that the company has a code of conduct / ethics policy and a conflict of interest policy.	G-T-D
	Board is organized into sub-committees (including an Audit Committee); annual report includes a charter on each	1 (YES)/ 0 (NO)	The utility's board is organized into committees (including an audit committee), each with a charter outlined in the annual report.	G-T-D
	Annual report provides information on Audit Committee activities	1 (YES)/ 0 (NO)	The utility's annual report provides information on the activities of the audit committee	G-T-D
	Internal controls exist; there is an internal audit function reporting directly to Board	1 (YES)/ 0 (NO)	The utility has in place a system of internal controls and an internal audit function reporting directly to the board. There must be evidence that a system of policies, procedures, and checks and balances is in place, covering (1) the integrity of financial data; (2) operational efficiency and effectiveness; and (3) compliance with governance policies and procedures. Internal Audit is a management function that evaluates compliance, recommends solutions to any weaknesses identified, and ensures that those solutions are implemented on a timely basis.	G-T-D
	Vacancies advertised on company website	1 (YES)/ 0 (NO)	Management and staff vacancies are advertised on the utility website.	G-T-D
	Utility uses e-procurement	1 (YES)/ 0 (NO)	The utility uses e-procurement, comprising an ERP-enabled procurement process linked to a tendering web portal on the company's website. The web portal should (1) enable supplier registration; (2) post tender opportunities and bidding documents; (3) enable bid submissions; and (4) post clarifications, etc. The utility also follows open contracting standards	G-T-D
CAPITAL MARKETS DISCIPLINE	Category score	%	Share of indicators reported in the category of capital markets discipline: number of reported indicators divided by total number of category indicators	G-T-D
	A portion of utility's shares is listed publicly	1 (YES)/ 0 (NO)	A portion of the utility's shares is listed publicly.	G-T-D
	Utility maintains a credit rating	1 (YES)/ 0 (NO)	The utility maintains a credit rating.	G-T-D
STAKEHOLDER RELATIONS	**Category score**	%	Share of indicators reported in the category of stakeholder relations: number of reported indicators divided by total number of category indicators	G-T-D
	Utility website provides connection procedures, tariff, and planned outage information	1 (YES)/ 0 (NO)	The utility's website provides connection procedures, tariff, and planned outage information.	D
	SMS/app/call center supports service interruption reporting and billing inquiries	1 (YES)/ 0 (NO)	The utility supports service interruption reporting and tracking and billing inquiries via its website, SMS, and/or mobile app.	D
	Annual report includes Corporate Social Responsibility narrative	1 (YES)/ 0 (NO)	The utility's annual report includes a corporate social responsibility narrative.	G-T-D
	Annual report includes an environmental narrative	1 (YES)/ 0 (NO)	The utility's annual report includes an environmental narrative.	G-T-D
	Annual report includes gender statistics	1 (YES)/ 0 (NO)	The utility's annual report reports gender statistics.	G-T-D

TABLE A.8 Supporting data collected

INDICATORS	APPLICABLE PARTS OF VALUE CHAIN
Number of employees Average cost of supply per kWh (in USD and local currency) Average tariff per kWh (in USD and local currency)	G-T-D
Generation capacity Peak dispatchable generation capacity	G
Length of transmission system	T
Customers per km of electricity network Affordability of connection fee Affordability of 30 kWh/month Policy to support low-volume customers Extent of metering (% of customers with meters) Nature of metering (% meters that are prepaid) Length of distribution system	D

A.2 UTILITY ONE-PAGE SUMMARIES

This section contains one-page summaries of each utility's performance on financial, operational, and transparency and accountability indicators, separated by utility type. Each summary is divided into three sections: (1) scope of the utility's activities; (2) utility performance; and (3) important developments. The contents of the three sections are outlined below.

The section on "scope of the utility's activities" begins with a brief description of the utility, indicating its type, year established, and any other important information, such as recent unbundling or concession agreements. It then presents supporting data to provide additional context for the utility's performance. Table A.9 describes the supporting data included in the "scope of the utility's activities" section.

TABLE A.9 Legend: Scope of the utility's activities

SUPPORTING DATA	DESCRIPTION	UNITS	UTILITY TYPES
Generation capacity	Total installed generation capacity ("sent out" or "station gate" capacity rather than "nameplate" capacity) owned directly by the utility	MW	VIU, G, G/T
Peak dispatchable generation capacity	Total installed dispatchable (non-intermittent) generation capacity ("sent out" or "station gate" capacity" rather than "nameplate" capacity) owned directly by the utility	MW	VIU, G, G/T
Number of employees	Number of people employed by the utility	Number	All
Customers per km of electricity network	Number of customers per km of the utility's electricity network	Customers/ km	VIU, T/D, D
Cost of subsistence consumption	Annual cost of subsistence consumption (30 kWh/month) as a percentage of GNI per household of the bottom 20 percent of households of the population (by income), as reported by the World Bank's RISE indicators	%	VIU, T/D, D
Affordability of connection fee	Number of months it takes for the consumer to pay the connection fee based on savings of the bottom 20 percent of the population, as reported by the World Bank's RISE indicators	Months	VIU, T/D, D
Policy to support low-volume customers	Existence of a mechanism to support low-volume consumers, such as a social or lifeline tariff, as reported by the World Bank's RISE indicators	Yes/No	VIU, T/D, D
Average cost of supply	Cost of supply [operating costs (cost of sales + other operating expenses + income tax) plus debt service (repayment of borrowings + interest paid)] divided by kWh delivered (supply at station gate for generation utilities; bulk supply for transmission utilities; and end-use demand for distribution and vertically integrated utilities)	LCU/kWh and USD/kWh	All
Average tariff	Revenue divided by kWh billed	LCU/kWh and USD/kWh	All
% customers with meters	Percentage of customers with meters	%	VIU, T/D, D
% prepaid meters	Percentage of customers with prepaid meters	%	VIU, T/D, D

Note: The year shown in parentheses next to the "Utility information" header indicates the year of the data unless otherwise noted by years in parentheses next to an indicator name. LCU = Local Currency Unit

The section on "utility performance" shows the utility's indicator results. The left side of the section contains two figures: the top figure shows the utility's financial performance over time while the bottom figure shows the utility's operational performance over time. At right are three tables—one for each dimension of utility performance: financial performance (top), operational performance (middle), and transparency and accountability performance (bottom). The "indicator" column shows the abbreviated name for the indicator used in the one-page summaries; the full name of the indicator is included in bold in the "description" column where necessary. Table A.10 describes the indicators in the "financial performance" table.

TABLE A.10 Legend: Financial performance

INDICATOR	DESCRIPTION	UNIT	UTILITY TYPES
Cost recovery			
Op. cost rec.	**Operating cost recovery (billed revenue), including subsidies:** [Revenue plus operations subsidies minus cashflow from net trade receivables (net trade receivables in year T minus net trade receivables in year T-1)] divided by operating costs (cost of sales + other operating expenses + income tax)	%	All
Op. & DS CR	**Operating and debt service cost recovery (billed revenue), including subsidies:** (Revenue plus operations subsidies plus capital subsidies) divided by [operating costs (cost of sales + other operating expenses + income tax) plus debt service (repayment of borrowings + interest paid)]	%	All
Op. & DS CR, no sub.	**Operating and debt service cost recovery (billed revenue), excluding subsidies:** Revenue divided by [operating costs (cost of sales + other operating expenses + income tax) plus debt service (repayment of borrowings + interest paid)]	%	All
Liquidity			
Collection rate	[Revenue minus cashflow from net trade receivables (net trade receivables in year T minus net trade receivables in year T-1) minus bad debt expense plus (deferred income on prepaid sales in year t minus deferred income on prepaid sales in year T-1)] divided by revenue	%	VIU, T/D, D
Accounts rec. %	**Accounts receivable percentage:** Trade receivables divided by revenue	%	All
Receivable days	Trade receivables divided by revenue times 365	Days	All
Accounts pay. %	**Accounts payable percentage:** Trade payables divided by cost of sales	%	All
Payable days	Trade payables divided by cost of sales times 365	Days	All
DSCR	**Debt service coverage ratio:** (Net cash generated in operating activities + net cash used in investing activities) divided by debt service (repayment of borrowings + interest paid)	Ratio	All
Capital structure			
Maturity matching	Total non-current assets divided by (total non-current liabilities + total equity)	Ratio	All
Implied cost of debt	Financing cost divided by debt (long-term debt/loans + current portion of long-term debt + short-term borrowings + bank overdraft)	%	All
Profitability			
Net profit margin	Profit (loss) for the year divided by revenue	%	All
EBITDA margin	Earnings before income, taxes, depreciation, and amortization divided by revenue	%	All

Note: The year shown in parentheses next to the "Indicator" header indicates the year of data unless otherwise noted by years in parentheses next to an indicator name. The "Range" column shows the minimum and maximum values for that utility type in the year indicated.

Table A.11 describes the indicators included in the "operational performance" table.

TABLE A.11 Legend: Operational performance

INDICATOR	DESCRIPTION	UNIT	UTILITY TYPES
Reliability			
Availability (solid)	**Reported availability of solid generation plants:** Hours the solid fuel generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)	%	VIU, G, G/T
Availability (liquid)	**Reported availability of liquid generation plants:** Hours the liquid fuel generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)	%	VIU, G, G/T
Availability (gas)	**Reported availability of natural gas generation plants:** Hours the natural gas generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)	%	VIU, G, G/T
Availability (hydro)	**Reported availability of hydropower generation plants:** Hours the hydropower generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)	%	VIU, G, G/T
Availability (RE)	**Reported availability of non-hydro renewable generation plants:** Hours the non-hydro renewable generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)	%	VIU, G, G/T
SAIDI, trans.	**Reported system average interruption duration index (transmission):** Sum of (number of customers affected by an outage times the duration of the outage) divided by total number of customers connected (as reported by the utility)	Hours	VIU, G/T, T, T/D
SAIFI, trans.	**Reported system average interruption frequency index (transmission):** Sum of number of customers affected by an outage divided by number of customers connected (as reported by the utility)	Interruptions	VIU, G/T, T, T/D
SAIDI, dist.	**Reported system average interruption duration index (distribution):** Sum of (number of customers affected by an outage times the duration of the outage) divided by total number of customers connected (as reported by the utility)	Hours	VIU, T/D, D
SAIFI, dist.	**Reported system average interruption frequency index (distribution):** Sum of number of customers affected by an outage divided by number of customers connected (as reported by the utility)	Interruptions	VIU, T/D, D
MIS	**Management information system:** The utility has a management information system (MIS) in place.	Yes/No	All
RPP	**Revenue protection plan:** The utility has a revenue protection plan (RPP) in place.	Yes/No	VIU, T/D, D
Efficiency			
Trans. losses	**Reported transmission losses:** Total losses on the transmission network as reported by the utility	%	VIU, G/T, T
Dist. losses	**Reported distribution losses:** Total losses on the distribution network as reported by the utility	%	VIU, T/D, D
System losses	**Reported system losses:** Total losses on the electricity network as reported by the utility. If the utility reports transmission and distribution losses separately, system losses are calculated as [1-((1-transmission losses)*(1-distribution losses))].	%	VIU, T/D
Time to connect	Time required to obtain an electricity connection in days (as reported by the World Bank's Doing Business indicators)	Days	VIU, T/D, D

Note: The year shown in parentheses next to the "Indicator" header indicates the year of data unless otherwise noted by years in parentheses next to an indicator name. The "Range" column shows the minimum and maximum values for that utility type in the year indicated; ranges are not shown for SAIDI and SAIFI as these are not necessarily comparable from utility to utility.

Table A.12 describes the indicators included in the accountability/transparency performance section of the utility summaries.

TABLE A.12 Legend: Accountability/transparency performance

INDICATOR	DESCRIPTION	UNIT	UTILITY TYPES
Performance management and reporting			
Utility has a public performance agreement	**Publicly available performance agreement with government or regulator:** The utility has a publicly available performance agreement with the government or regulator, e.g., a performance agreement for an SOE with its oversight ministry, a private license or concession agreement, or a performance-based regulation agreement.	Yes/No	All
Financial statements published on utility website	Financial statements, completed to IFRS/OHADA standards, are published on the utility's website within 12 months of the end of the fiscal year.	Yes/No	All
Annual report published on utility website	The utility's annual report is published on its website within 12 months of the end of the fiscal year.	Yes/No	All
Independent external audit of financial statements	**Financial statements use IFRS/OHADA and are independently audited:** The utility's financial statements are audited by an external party: internationally recognized audit firms, local firms appointed by the state auditor, or the state auditor itself.	Yes/No	All
Audit opinion unqualified	The audit of the utility's financial statements finds that the statements are fairly and appropriately presented, without exception or qualification.	Yes/No	All
Annual report includes relevant KPIs	**Annual report includes relevant operational and financial KPIs:** The utility's annual report includes relevant operational and financial KPIs.	Yes/No	All
Integrity and internal controls			
Annual report describes audit committee activities	**Annual report provides information on audit committee activities:** The utility's annual report provides information on the activities of the audit committee.	Yes/No	All
Utility has system of internal controls and audit	**Internal controls exist; there is an internal audit function reporting directly to board:** The utility has in place a system of internal controls and an internal audit function reporting directly to the board. There must be evidence that a system of policies, procedures, and checks and balances in place, covering (1) the integrity of financial data, (2) operational efficiency and effectiveness, and (3) compliance with governance policies and procedures. Internal audit is a management function that evaluates compliance, recommends solutions to any weaknesses identified, and ensures that those solutions are implemented on a timely basis	Yes/No	All
Utility uses e-procurement and open contracting	The utility uses e-procurement, comprising an ERP-enabled procurement process linked to a tendering web portal on the company's website. The web portal should (1) enable supplier registration; (2) post tender opportunities and bidding documents; (3) enable bid submissions; and (4) post clarifications, etc. The utility also follows open contracting standards.	Yes/No	All
Stakeholder relations			
Utility website provides relevant information to customers	**Utility website provides connection procedures, tariff, and planned outage information:** The utility's website provides connection procedures, tariff, and planned outage information	Yes/No	VIU, T/D, D
Utility has customer-service system in place	**SMS/app/call center supports service interruption reporting and billing inquiries:** The utility supports service interruption reporting and tracking and billing inquiries via its website, SMS, and/or mobile app.	Yes/No	VIU, T/D, D

Note: The year shown in parentheses next to the "Indicator" header indicates the year of data.

The "important developments" section at the bottom of each summary provides explanations for performance, observations about trends in performance, and other information to provide further context for the indicators.

A.2.1 Vertically integrated utilities

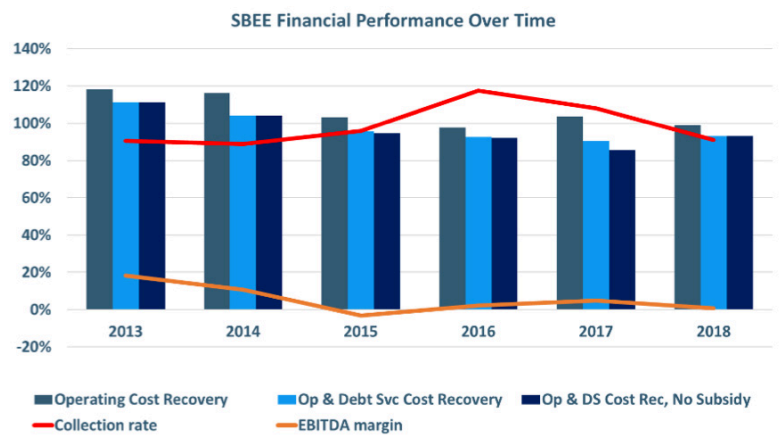
Benin: Société Béninoise d'Energie Electrique (SBEE)

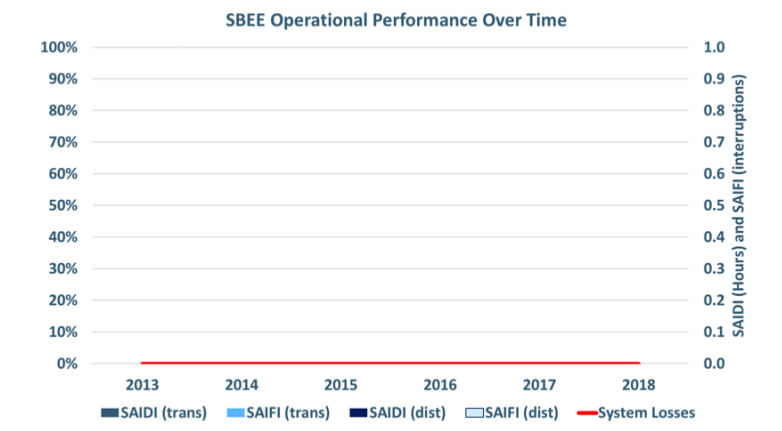
Scope of the utility's activities

SBEE is a vertically integrated electricity utility in Benin, established in 1973.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2014)	241	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2014)	241	MW	Average cost of supply	111.22/0.200	LCU/USD per kWh
Number of employees (2017)	1,883	No.	Average tariff	103.46/0.186	LCU/USD per kWh
Customers per km electricity network	92.9	No./km	% customers with meters	No data	%
Cost of subsistence consumption	10.19%	%	% prepaid meters	No data	%
Affordability of connection fee	5.38	Mos.			

Utility performance





Financial performance

Indicator (2018)		SBEE	VIU Range	Unit
Cost recovery	Op. cost rec.	99.0%	56.2% -132.2%	%
	Op. & DS CR	93.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	93.0%	21.5% -125.0%	%
Liquidity	Collection rate	91.1%	41.7% -106.0%	%
	Accounts rec. %	77.0%	7.6% -583.5%	%
	Receivable days	281	28 -2130	Days
	Accounts pay. %	39.0%	10.2% -185.2%	%
	Payable days	142	37 -676	Days
	DSCR	(1.7)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.0	(83.6)-31.2	Ratio
	Implied cost of debt	2.9%	0.4% -45.0%	%
Profitability	Net profit margin	(9.6%)	(235.7%)-47.1%	%
	EBITDA margin	0.8%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SBEE	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -58.4%	%
	Time to connect	90	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *Debt has increased in recent years and tariffs no longer fully cover debt service cashflow requirements.*
- *While the collection rate is close to 100%, high receivables and payables suggest legacy collection issues have not been resolved.*

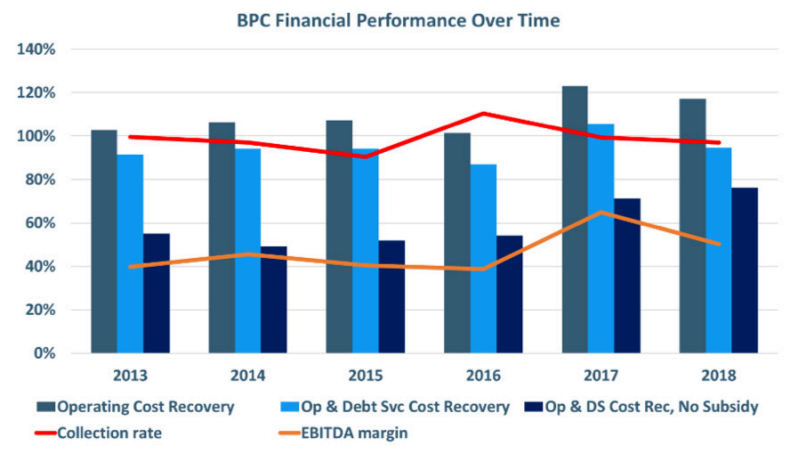
Botswana: Botswana Power Corporation (BPC)

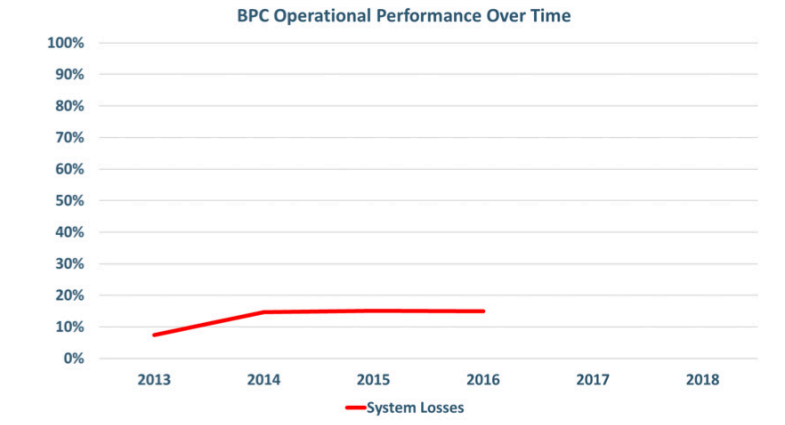
Scope of the utility's activities

BPC is a vertically integrated electricity utility in Botswana, established in 1970.

Utility information (2016)	Data	Unit	Utility information (2016)	Data	Unit
Generation capacity	892	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	892	MW	Average cost of supply	1.55/0.145	LCU/USD per kWh
Number of employees	2,106	No.	Average tariff	0.84/0.079	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		BPC	VIU Range	Unit
Cost recovery	Op. cost rec.	117.1%	56.2% -132.2%	%
	Op. & DS CR	94.5%	22.2% -125.0%	%
	Op. & DS CR, no sub.	76.4%	21.5% -125.0%	%
Liquidity	Collection rate	97.0%	41.7% -106.0%	%
	Accounts rec. %	9.8%	7.6% -583.5%	%
	Receivable days	36	28 -2130	Days
	Accounts pay. %	15.3%	10.2% -185.2%	%
	Payable days	56	37 -676	Days
	DSCR	1.0	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.1	(83.6)-31.2	Ratio
	Implied cost of debt	5.1%	0.4% -45.0%	%
Profitability	Net profit margin	6.0%	(235.7%)-47.1%	%
	EBITDA margin	50.2%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		BPC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses (2016)	14.9%	9.6% -37.6%	%
	Time to connect	77	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *BPC benefits from large but transparent operating subsidies, which result in good cost recovery in 2018.*
- *There has been a substantial reduction in receivables in recent years, resulting in Receivable days of just 36 days by the end of 2018.*

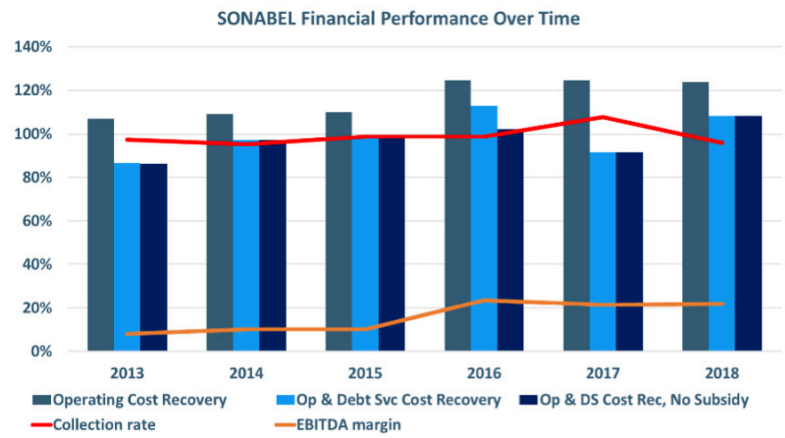
Burkina Faso: Société Nationale d'électricité du Burkina Faso (SONABEL)

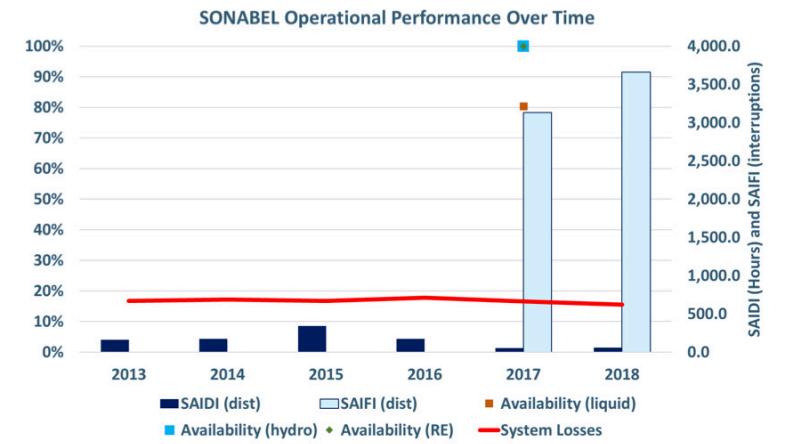
Scope of the utility's activities

SONABEL is a vertically integrated electricity utility in Burkina Faso, established in 1995.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	355	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	355	MW	Average cost of supply	110.28/0.199	LCU/USD per kWh
Number of employees	1,877	No.	Average tariff	119.30/0.215	LCU/USD per kWh
Customers per km electricity network	37.4	No./km	% customers with meters	99.72%	%
Cost of subsistence consumption	6.48%	%	% prepaid meters	23.73%	%
Affordability of connection fee	0.13	Mos.			

Utility performance





Financial performance

Indicator (2018)		SONABEL	VIU Range	Unit
Cost recovery	Op. cost rec.	123.6%	56.2% -132.2%	%
	Op. & DS CR	108.2%	22.2% -125.0%	%
	Op. & DS CR, no sub.	108.2%	21.5% -125.0%	%
Liquidity	Collection rate	95.8%	41.7% -106.0%	%
	Accounts rec. %	33.6%	7.6% -583.5%	%
	Receivable days	123	28 -2130	Days
	Accounts pay. %	23.2%	10.2% -185.2%	%
	Payable days	85	37 -676	Days
	DSCR	(1.0)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.9	(83.6)-31.2	Ratio
	Implied cost of debt	2.5%	0.4% -45.0%	%
Profitability	Net profit margin	4.9%	(235.7%)-47.1%	%
	EBITDA margin	21.8%	(54.8%)-128.3%	%

Operational performance

Indicator (2017)		SONABEL	VIU Range	Unit
Reliability	Availability (solid)	No data	31.2% -31.2%	%
	Availability (liquid)	80.3%	40.0% -98.1%	%
	Availability (gas)	No data	47.5% -91.5%	%
	Availability (hydro)	100.0%	44.0% -100.0%	%
	Availability (RE)	100.0%	18.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist. (2018)	59.0	Not applicable	Hrs
	SAIFI, dist. (2018)	185.9	Not applicable	Ints
	MIS (2018)	Yes	Not applicable	Y/N
	RPP (2018)	No	Not applicable	Y/N
Efficiency	System losses	15.6%	10.5% -58.4%	%
	Time to connect	169	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Increase in operating subsidies in 2016 improves cost recovery metrics for that year.*
- *Payable days have improved substantially, but Receivable days are still high despite collection rates consistently near 100%.*

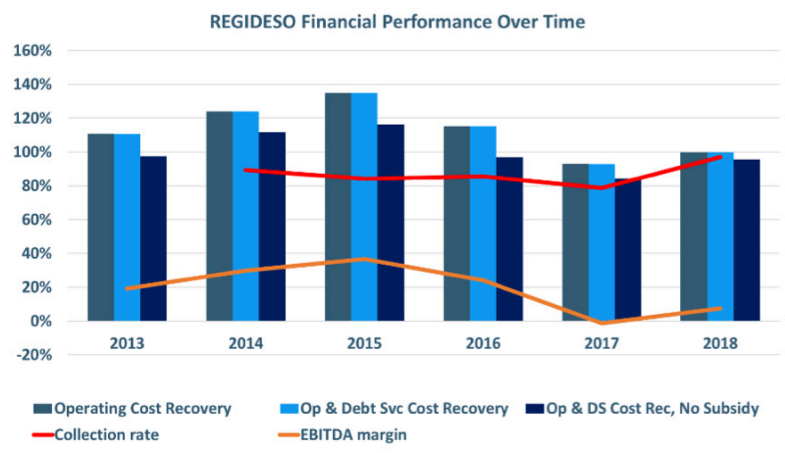
Burundi: Régie de Production et de Distribution d'Eau et d'Électricité (REGIDESO)

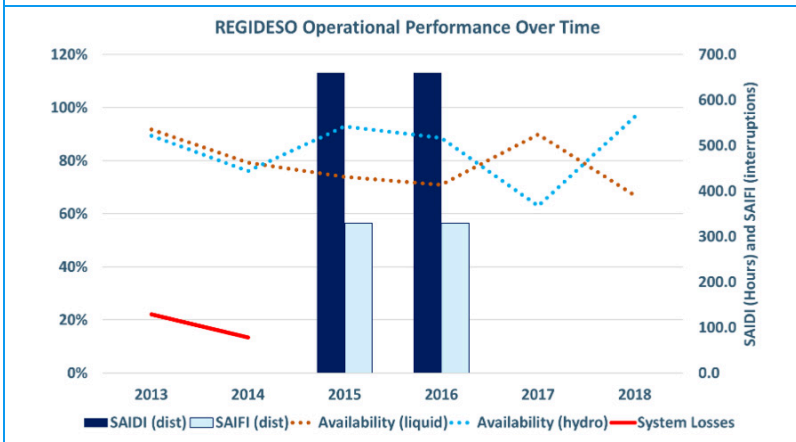
Scope of the utility's activities

REGIDESO is a vertically integrated electricity utility in Burundi, established in 1968.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	68	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	68	MW	Average cost of supply (2017)	307.32/0.179	LCU/USD per kWh
Number of employees	362	No.	Average tariff (2017)	259.31/0.151	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption (2015)	5.23%	%	% prepaid meters	47%	%
Affordability of connection fee	28.86	Mos.			

Utility performance





Financial performance

Indicator (2018)		REGI-DESO	VIU Range	Unit
Cost recovery	Op. cost rec.	99.9%	56.2% -132.2%	%
	Op. & DS CR	99.8%	22.2% -125.0%	%
	Op. & DS CR, no sub.	95.5%	21.5% -125.0%	%
Liquidity	Collection rate	97.1%	41.7% -106.0%	%
	Accounts rec. %	95.6%	7.6% -583.5%	%
	Receivable days	349	28 -2130	Days
	Accounts pay. %	39.8%	10.2% -185.2%	%
	Payable days	145	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.7	(83.6)-31.2	Ratio
	Implied cost of debt	No data	0.4% -45.0%	%
Profitability	Net profit margin	(3.2%)	(235.7%)-47.1%	%
	EBITDA margin	7.5%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		REGI-DESO	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	67.0%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	96.6%	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	660.0	Not applicable	Hrs
	SAIFI, dist.	330.0	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses (2014)	13.5%	6.9% -47.3%	%
	Time to connect	158	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Cost recovery has declined since 2015 as tariffs have not kept pace with rising costs.*
- *Receivable days are very high, as the collection rate has been below 90% until 2018. No bad debt expense has been charged in recent years although it is questionable whether the full accounts receivable balance is recoverable.*
- *Combined, these factors have led to accounts payable increasing sharply.*

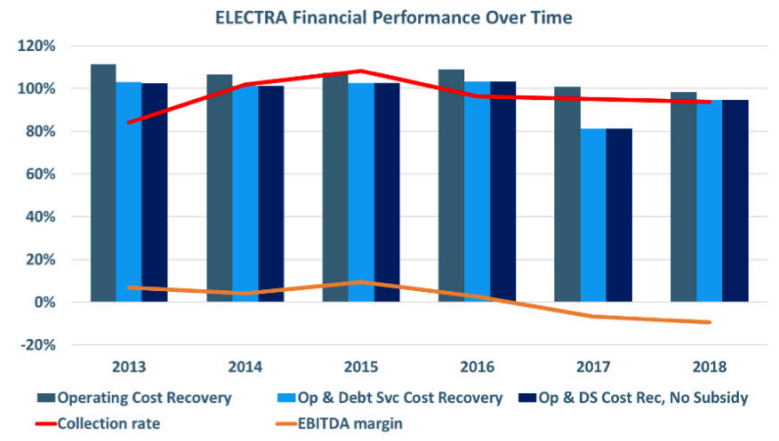
Cabo Verde: Empresa de Electricidade e Áqua (ELECTRA)

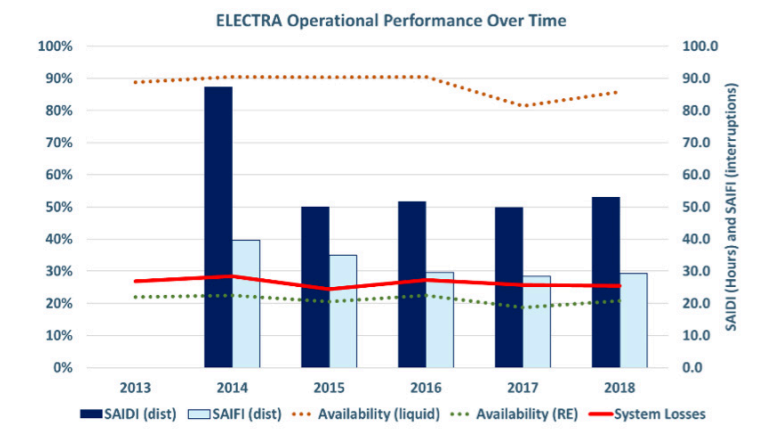
Scope of the utility's activities

ELECTRA is a vertically integrated electricity utility in Cabo Verde, established in 1982.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	132	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	125	MW	Average cost of supply	37.38/0.397	LCU/USD per kWh
Number of employees	804	No.	Average tariff	35.48/0.377	LCU/USD per kWh
Customers per km electricity network	97.3	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		ELECTRA	VIU Range	Unit
Cost recovery	Op. cost rec.	98.3%	56.2% -132.2%	%
	Op. & DS CR	94.7%	22.2% -125.0%	%
	Op. & DS CR, no sub.	94.7%	21.5% -125.0%	%
Liquidity	Collection rate	93.9%	41.7% -106.0%	%
	Accounts rec. %	40.2%	7.6% -583.5%	%
	Receivable days	147	28 -2130	Days
	Accounts pay. %	11.7%	10.2% -185.2%	%
	Payable days	43	37 -676	Days
	DSCR	(1.5)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.1	(83.6)-31.2	Ratio
	Implied cost of debt	1.5%	0.4% -45.0%	%
Profitability	Net profit margin	(24.0%)	(235.7%)-47.1%	%
	EBITDA margin	(9.4%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		ELECTRA	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	85.8%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	20.8%	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	53.0	Not applicable	Hrs
	SAIFI, dist.	29.3	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	25.5%	10.5% -58.4%	%
	Time to connect	88	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Profitability has fallen in recent years despite consistent cost recovery metrics.*

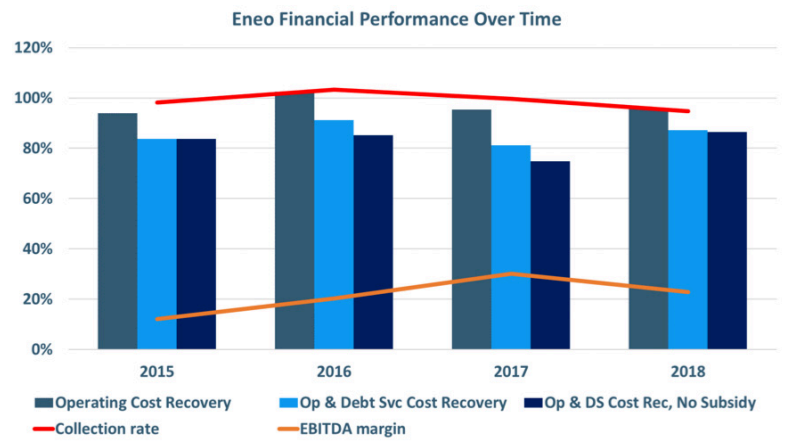
Cameroon: Eneo Cameroun S.A. (Eneo)

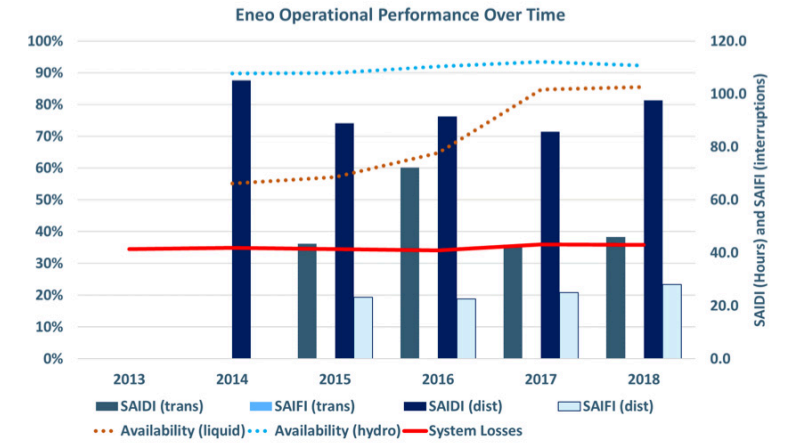
Scope of the utility's activities

Eneo is a vertically integrated electricity utility in Cameroon, established in 1962. Since 2015, it has been a subsidiary of Actis (UK) and operating under a concession agreement with Government.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	867	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	867	MW	Average cost of supply (2017)	79.74/0.137	LCU/USD per kWh
Number of employees	3,697	No.	Average tariff (2017)	59.65/0.102	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	3.21%	%	% prepaid meters	No data	%
Affordability of connection fee	0.11	Mos.			

Utility performance





Financial performance

Indicator (2018)		Eneo	VIU Range	Unit
Cost recovery	Op. cost rec.	96.1%	56.2% -132.2%	%
	Op. & DS CR	87.2%	22.2% -125.0%	%
	Op. & DS CR, no sub.	86.5%	21.5% -125.0%	%
Liquidity	Collection rate	94.7%	41.7% -106.0%	%
	Accounts rec. %	64.0%	7.6% -583.5%	%
	Receivable days	234	28 -2130	Days
	Accounts pay. %	67.0%	10.2% -185.2%	%
	Payable days	245	37 -676	Days
	DSCR	(0.4)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.3	(83.6)-31.2	Ratio
	Implied cost of debt	12.7%	0.4% -45.0%	%
Profitability	Net profit margin	3.7%	(235.7%)-47.1%	%
	EBITDA margin	22.8%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		Eneo	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	85.6%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	92.3%	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	45.9	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	97.7	Not applicable	Hrs
	SAIFI, dist.	28.0	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	35.9%	10.5% -58.4%	%
	Time to connect	64	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *The substantial debtor and Payable days indicates that the recoverability of some balances may be questionable.*
- *Cost recovery indicators are low, but the utility breaks even through non-core income streams.*

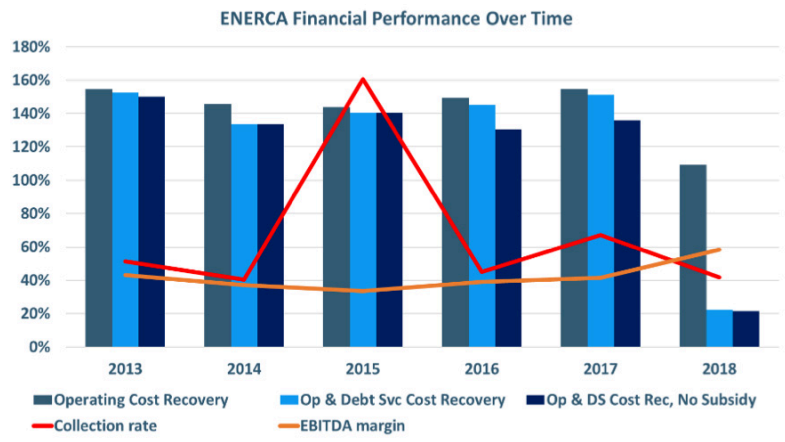
Central African Republic: Energie Centrafricaine (ENERCA)

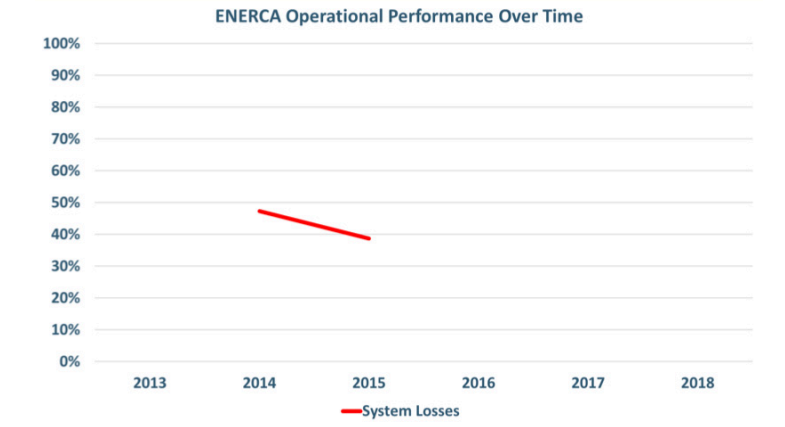
Scope of the utility's activities

ENERCA is a vertically integrated electricity utility in Central African Republic, established in 1963.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2016)	37	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity (2016)	37	MW	Average cost of supply (2015)	53.42/0.090	LCU/USD per kWh
Number of employees (2015)	785	No.	Average tariff (2015)	75.14/0.127	LCU/USD per kWh
Customers per km electricity network (2014)	27.6	No./km	% customers with meters	No data	%
Cost of subsistence consumption	31.76%	%	% prepaid meters	No data	%
Affordability of connection fee	8.99	Mos.			

Utility performance





Financial performance

Indicator (2018)		ENERCA	VIU Range	Unit
Cost recovery	Op. cost rec.	109.3%	56.2% -132.2%	%
	Op. & DS CR	22.2%	22.2% -125.0%	%
	Op. & DS CR, no sub.	21.5%	21.5% -125.0%	%
Liquidity	Collection rate	41.7%	41.7% -106.0%	%
	Accounts rec. %	583.5%	7.6% -583.5%	%
	Receivable days	2,130	28 -2130	Days
	Accounts pay. %	48.6%	10.2% -185.2%	%
	Payable days	177	37 -676	Days
	DSCR	(0.1)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.8	(83.6)-31.2	Ratio
	Implied cost of debt	1.0%	0.4% -45.0%	%
Profitability	Net profit margin	(235.7%)	(235.7%)-47.1%	%
	EBITDA margin	58.4%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		ENERCA	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses (2015)	38.7%	6.6% -40.0%	%
	Time to connect	98	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Low and erratic collection rate is a major issue.*
- *Receivables are a high multiple of total equity and there is a very high debtor balance attributable to private clients; it seems unlikely that this is fully recoverable.*

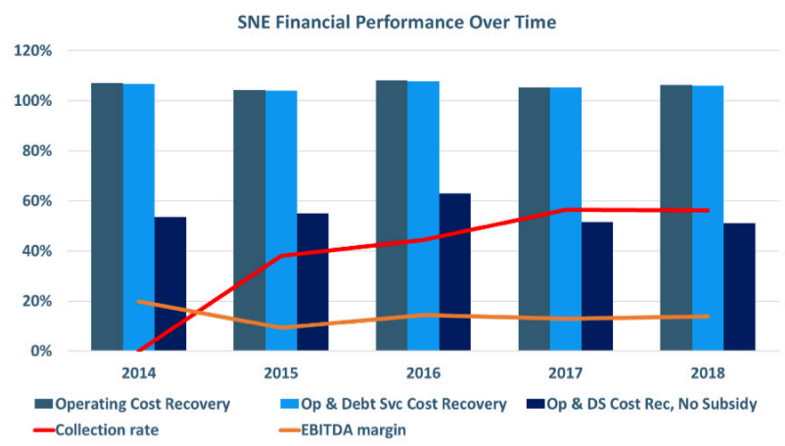
Chad: Société Nationale d'Electricité (SNE)

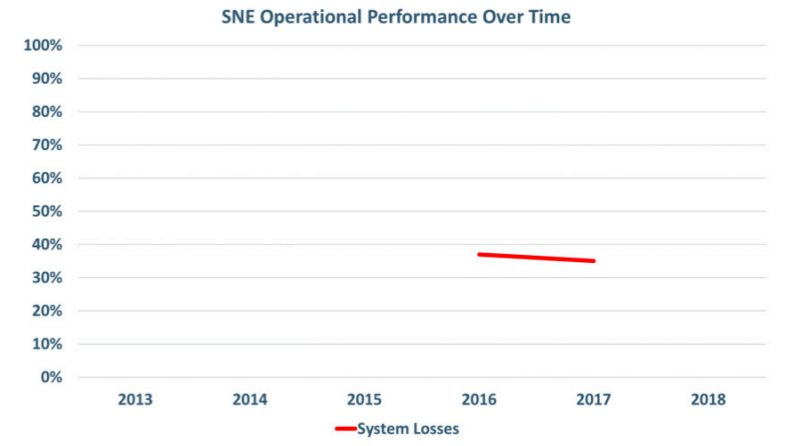
Scope of the utility's activities

SNE is a vertically integrated electricity utility in Chad, established in 1999.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2016)	102	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity (2016)	102	MW	Average cost of supply (2017)	268.05/0.461	LCU/USD per kWh
Number of employees	657	No.	Average tariff (2017)	138.27/0.238	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	8.50%	%	% prepaid meters	No data	%
Affordability of connection fee	0.70	Mos.			

Utility performance





Financial performance

Indicator (2018)		SNE	VIU Range	Unit
Cost recovery	Op. cost rec.	106.3%	56.2% -132.2%	%
	Op. & DS CR	106.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	51.0%	21.5% -125.0%	%
Liquidity	Collection rate	56.2%	41.7% -106.0%	%
	Accounts rec. %	260.2%	7.6% -583.5%	%
	Receivable days	950	28 -2130	Days
	Accounts pay. %	126.7%	10.2% -185.2%	%
	Payable days	462	37 -676	Days
	DSCR	17.4	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.6	(83.6)-31.2	Ratio
	Implied cost of debt	1.8%	0.4% -45.0%	%
Profitability	Net profit margin	(2.8%)	(235.7%)-47.1%	%
	EBITDA margin	13.8%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SNE	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses (2017)	35.0%	6.3% -35.9%	%
	Time to connect	67	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Very large operating subsidy required; without this subsidy tariffs are much lower than cost reflective levels.*
- *Collection rate is persistently very low resulting in a substantial build-up of both for receivables and for payables.*
- *Total receivables are more than 10x total equity.*

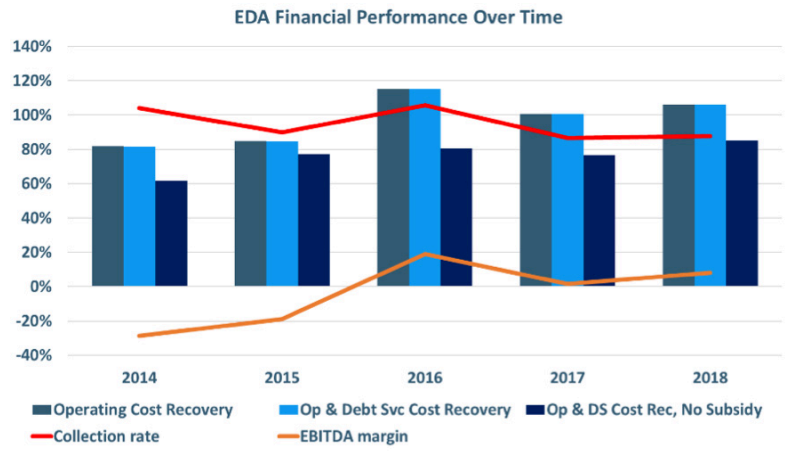
Comoros: Electricité d'Anjouan (EDA)

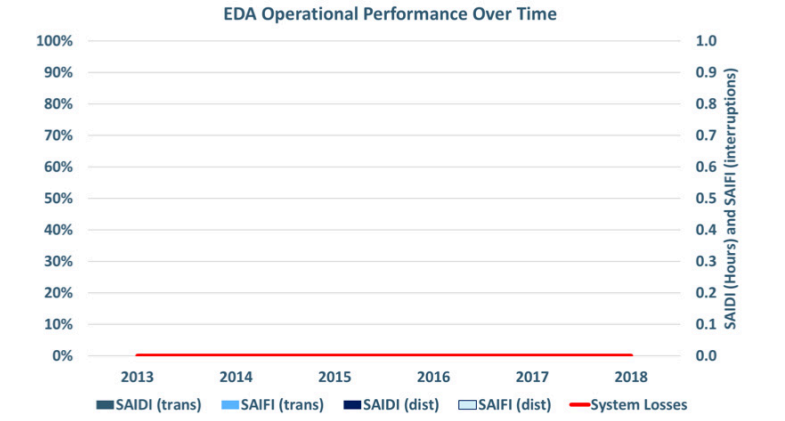
Scope of the utility's activities

EDA is a vertically integrated electricity utility in Comoros, established in 2002.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	No data	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	No data	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		EDA	VIU Range	Unit
Cost recovery	Op. cost rec.	106.1%	56.2% -132.2%	%
	Op. & DS CR	106.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	85.0%	21.5% -125.0%	%
Liquidity	Collection rate	87.8%	41.7% -106.0%	%
	Accounts rec. %	36.3%	7.6% -583.5%	%
	Receivable days	132	28 -2130	Days
	Accounts pay. %	181.0%	10.2% -185.2%	%
	Payable days	661	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	(83.6)	(83.6)-31.2	Ratio
	Implied cost of debt	10.8%	0.4% -45.0%	%
Profitability	Net profit margin	5.1%	(235.7%)-47.1%	%
	EBITDA margin	8.0%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EDA	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -58.4%	%
	Time to connect	No data	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Substantial operating subsidies are important in ensuring EDA recovers costs. An increase in this subsidy so that cost recovery is 100% or higher means that profitability has improved in recent years.*
- *However, receivables and payables have also increased slightly, which could have a negative impact on liquidity.*

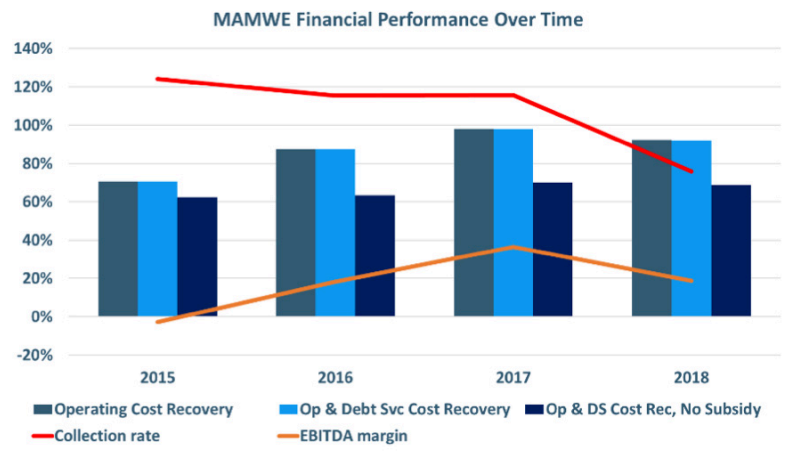
Comoros: Gestion de l'Eau et de l'Électricité aux Comoros (MAMWE)

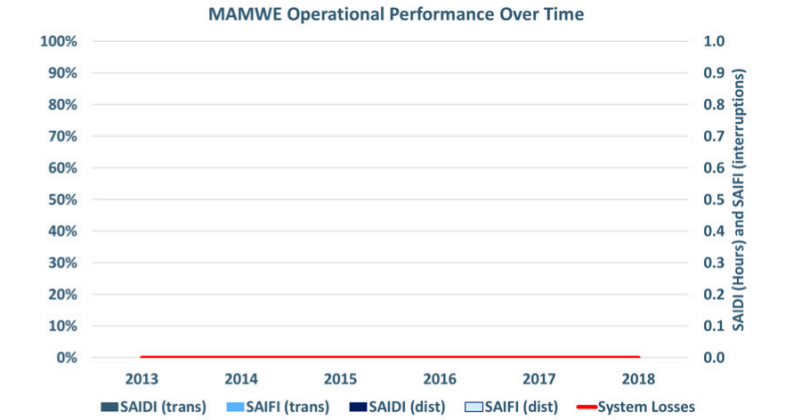
Scope of the utility's activities

MAMWE is a vertically integrated electricity utility in Comoros, established in 2003.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2014)	27	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	No data	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees (2012)	109	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		MAMWE	VIU Range	Unit
Cost recovery	Op. cost rec.	92.2%	56.2% -132.2%	%
	Op. & DS CR	92.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	68.7%	21.5% -125.0%	%
Liquidity	Collection rate	76.0%	41.7% -106.0%	%
	Accounts rec. %	No data	7.6% -583.5%	%
	Receivable days	No data	28 -2130	Days
	Accounts pay. %	78.2%	10.2% -185.2%	%
	Payable days	285	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.0	(83.6)-31.2	Ratio
	Implied cost of debt	3.6%	0.4% -45.0%	%
Profitability	Net profit margin	(38.7%)	(235.7%)-47.1%	%
	EBITDA margin	18.7%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		MAMWE	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses (2012)	40.1%	7.7% -40.1%	%
	Time to connect	120	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Cost recovery indicators are below 100%, even with substantial operating subsidies included.*
- *Minimal cashflow statement data available.*

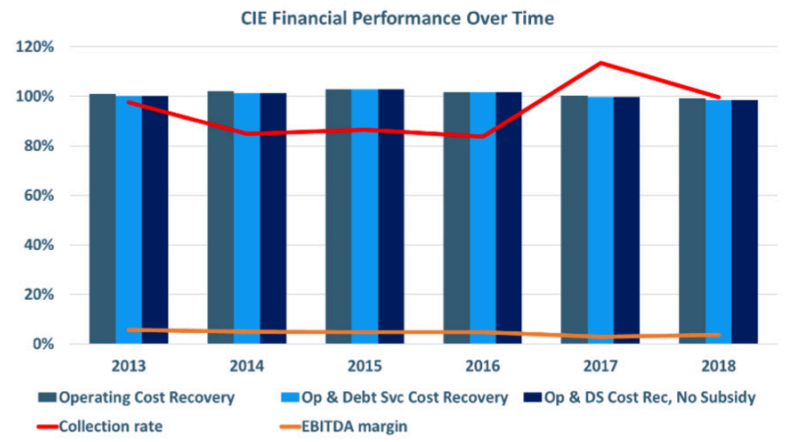
Côte d'Ivoire: Compagnie Ivoirienne d'Electricité (CIE)

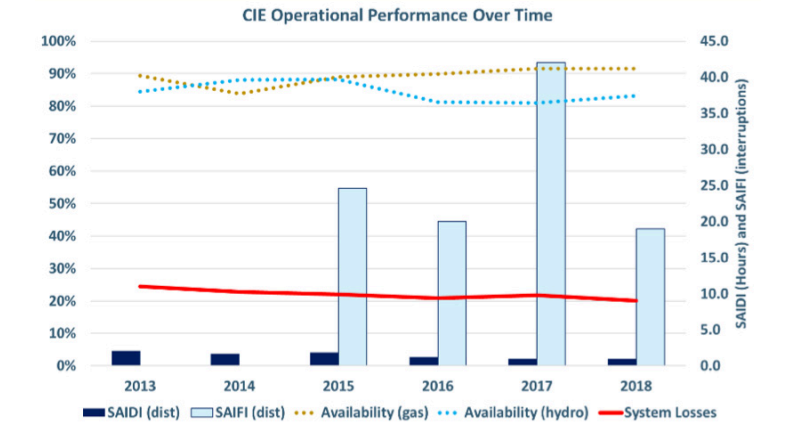
Scope of the utility's activities

CIE is a vertically integrated electricity utility in Côte d'Ivoire, established in 1990.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2014)	704	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2014)	704	MW	Average cost of supply	67.45/0.121	LCU/USD per kWh
Number of employees	4,818	No.	Average tariff	66.35/0.119	LCU/USD per kWh
Customers per km electricity network (2017)	37.7	No./km	% customers with meters	No data	%
Cost of subsistence consumption	2.11%	%	% prepaid meters	No data	%
Affordability of connection fee (2015)	0.002	Mos.			

Utility performance





Financial performance

Indicator (2018)		CIE	VIU Range	Unit
Cost recovery	Op. cost rec.	99.2%	56.2% -132.2%	%
	Op. & DS CR	98.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	98.4%	21.5% -125.0%	%
Liquidity	Collection rate	99.6%	41.7% -106.0%	%
	Accounts rec. %	67.7%	7.6% -583.5%	%
	Receivable days	247	28 -2130	Days
	Accounts pay. %	99.2%	10.2% -185.2%	%
	Payable days	362	37 -676	Days
	DSCR	(8.9)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.2	(83.6)-31.2	Ratio
	Implied cost of debt	0.9%	0.4% -45.0%	%
Profitability	Net profit margin	0.6%	(235.7%)-47.1%	%
	EBITDA margin	3.6%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		CIE	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	91.5%	47.0% -91.5%	%
	Availability (hydro)	83.1%	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	0.9	Not applicable	Hrs
	SAIFI, dist.	19.0	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	20.1%	10.5% -58.4%	%
	Time to connect	55	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	No

Important developments

- *CIE has very low long-term debt, which results in strong cost-recovery metrics.*
- *Receivable days remains high compared to other utilities but has been reduced in recent years with improved collections.*
- *This has coincided with improved technical performance, with improved reliability and reduced distribution losses.*

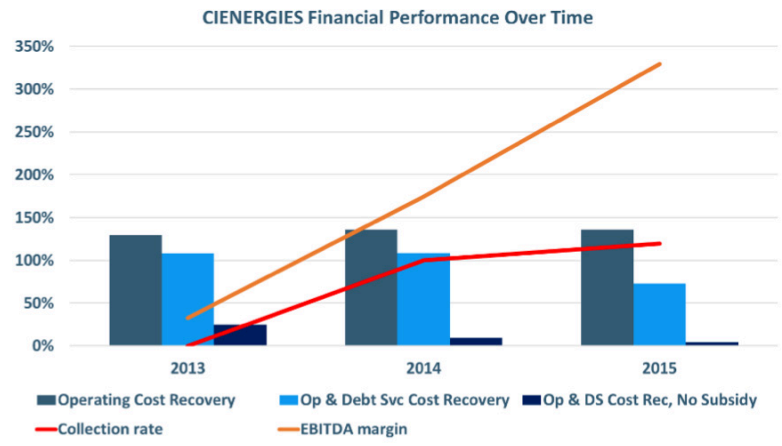
Côte d'Ivoire: Société des Energies de Côte d'Ivoire (CIENERGIES)

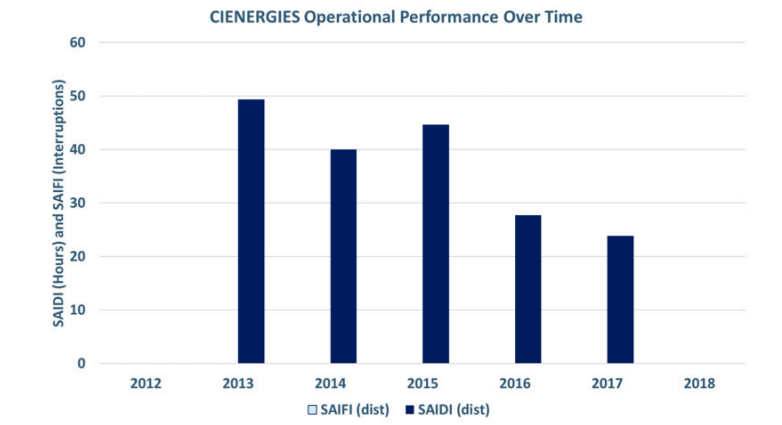
Scope of the utility's activities

CIENERGIES is a vertically integrated electricity utility in Côte d'Ivoire, established in 2011.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2017)	2,199	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2017)	2,199	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network (2017)	37.7	No./km	% customers with meters	No data	%
Cost of subsistence consumption	2.11%	%	% prepaid meters	No data	%
Affordability of connection fee	0.002	Mos.			

Utility performance





Financial performance

Indicator (2015)		CIEN-ERGIES	VIU Range	Unit
Cost recovery	Op. cost rec.	135.8%	61.7% -149.0%	%
	Op. & DS CR	72.6%	61.4% -140.7%	%
	Op. & DS CR, no sub.	4.6%	4.6% -140.7%	%
Liquidity	Collection rate	119.4%	38.1% -160.6%	%
	Accounts rec. %	53.0%	8.8% -483.2%	%
	Receivable days	193	32 -1764	Days
	Accounts pay. %	60.5%	4.9% -341.2%	%
	Payable days	221	18 -1245	Days
	DSCR	(1.0)	(54.2)-84.4	Ratio
Capital structure	Maturity matching	0.1	(4.5)-3.0	Ratio
	Implied cost of debt	6.6%	0.2% -20.3%	%
Profitability	Net profit margin	0.0%	(137.2%)-23.5%	%
	EBITDA margin	329.6%	(43.0%)-329.6%	%

Operational performance

Indicator (2018)		CIEN-ERGIES	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	23.8	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -58.4%	%
	Time to connect	55	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Without the benefit of substantial operational subsidies, CIENERGIES would have extremely low levels of cost recovery.*
- *Despite good collection rates, CIENERGIES has high receivables.*

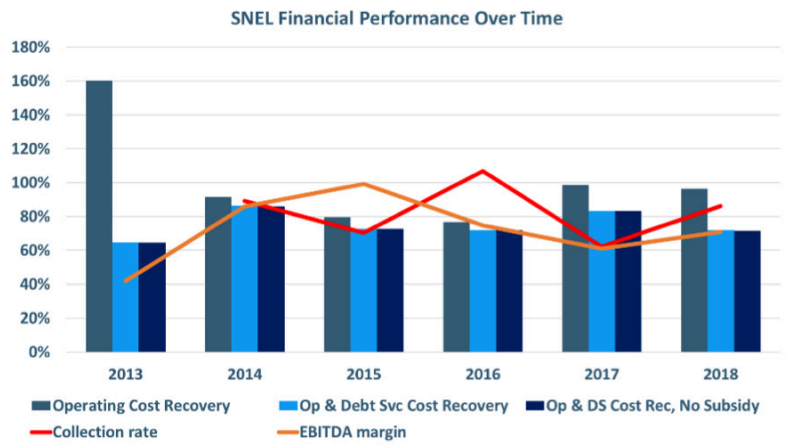
Democratic Republic of the Congo: Société Nationale d'Electricité (SNEL)

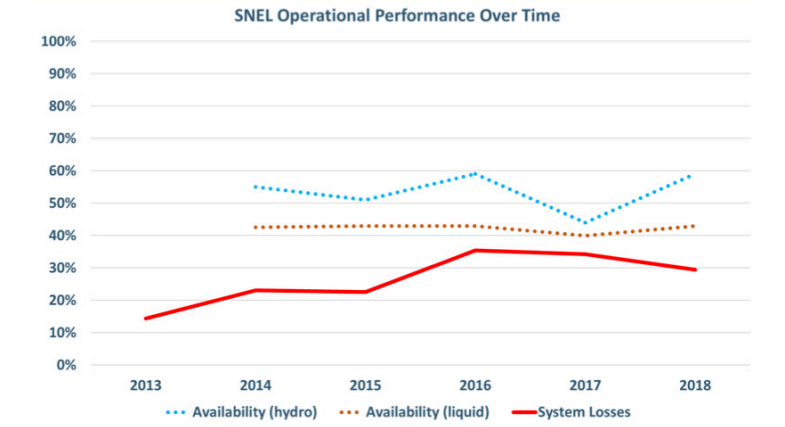
Scope of the utility's activities

SNEL is a vertically integrated electricity utility in Democratic Republic of the Congo, established in 1970.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	2,610	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2016)	1,440	MW	Average cost of supply	203.1/0.125	LCU/USD per kWh
Number of employees	6,323	No.	Average tariff	145.32/0.090	LCU/USD per kWh
Customers per km electricity network	23.6	No./km	% customers with meters (2012)	98.90%	%
Cost of subsistence consumption	8.12%	%	% prepaid meters	No data	%
Affordability of connection fee	10.12	Mos.			

Utility performance





Financial performance

Indicator (2018)		SNEL	VIU Range	Unit
Cost recovery	Op. cost rec.	96.5%	56.2% -132.2%	%
	Op. & DS CR	71.9%	22.2% -125.0%	%
	Op. & DS CR, no sub.	71.6%	21.5% -125.0%	%
Liquidity	Collection rate	86.1%	41.7% -106.0%	%
	Accounts rec. %	111.5%	7.6% -583.5%	%
	Receivable days	407	28 -2130	Days
	Accounts pay. % (2013)	283.9%	4.5% -6200.5%	%
	Payable days (2013)	1,036	37 -22632	Days
	DSCR	(0.2)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.9	(83.6)-31.2	Ratio
	Implied cost of debt	4.3%	0.4% -45.0%	%
Profitability	Net profit margin	0.2%	(235.7%)-47.1%	%
	EBITDA margin	70.8%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SNEL	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	43.0%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	59.0%	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	0.0 -45.9	Hrs
	SAIFI, trans.	No data	0.2 -22.2	Ints
	SAIDI, dist.	No data	0.4 -834.7	Hrs
	SAIFI, dist.	No data	0.1 -3658.0	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	29.5%	10.5% -58.4%	%
	Time to connect	44	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	No

Important developments

- *SNEL's financial statements are lacking in detail but show a utility that makes a positive net margin from 2015 to 2018 despite poor cost recovery through revenues. The utility has a large 'other income' line item; it is unclear whether this is subsidy or some other form of income.*
- *Low and volatile collections and growing receivables may threaten liquidity.*

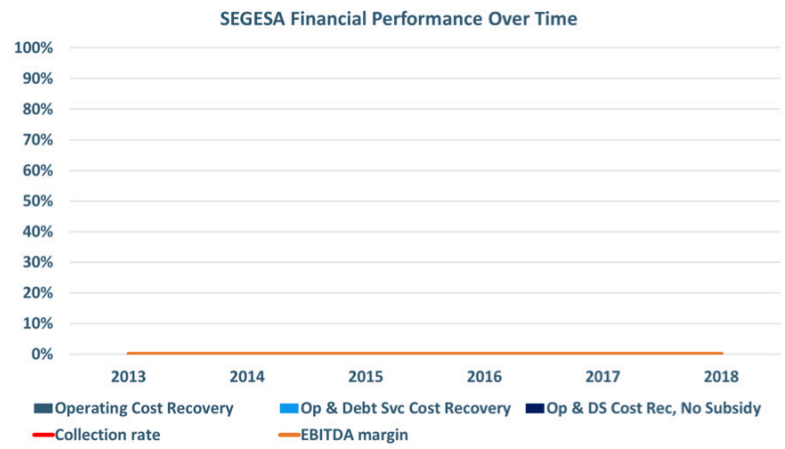
Equatorial Guinea: Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)

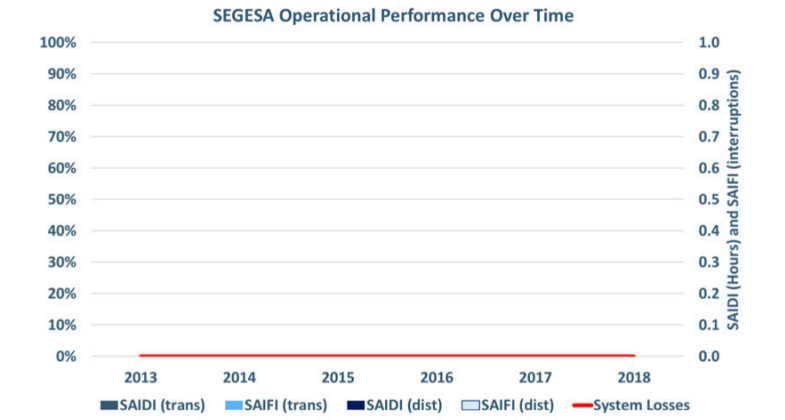
Scope of the utility's activities

SEGESA is a vertically integrated electricity utility in Equatorial Guinea, established in 2001.

Utility information (2014)	Data	Unit	Utility information (2014)	Data	Unit
Generation capacity	302	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	302	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		SEGESA	VIU Range	Unit
Cost recovery	Op. cost rec.	No data	56.2% -132.2%	%
	Op. & DS CR	No data	22.2% -125.0%	%
	Op. & DS CR, no sub.	No data	21.5% -125.0%	%
Liquidity	Collection rate	No data	41.7% -106.0%	%
	Accounts rec. %	No data	7.6% -583.5%	%
	Receivable days	No data	28 -2130	Days
	Accounts pay. %	No data	10.2% -185.2%	%
	Payable days	No data	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	No data	(83.6)-31.2	Ratio
	Implied cost of debt	No data	0.4% -45.0%	%
Profitability	Net profit margin	No data	(235.7%)-47.1%	%
	EBITDA margin	No data	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SEGESA	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -70.0%	%
	Time to connect	106	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *No financial or operational data were available for SEGESA*

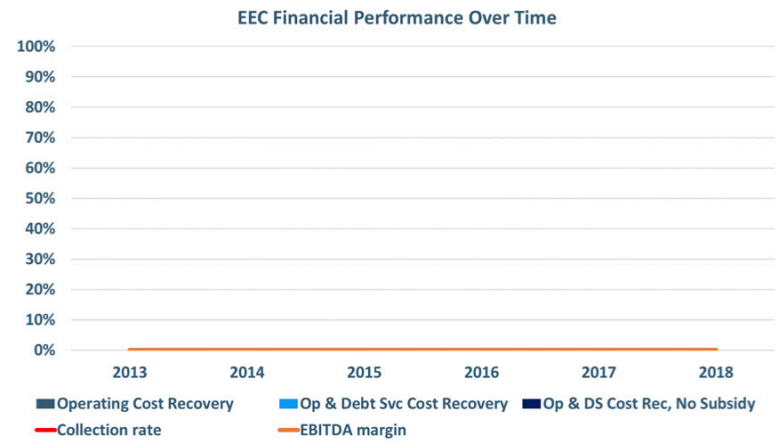
Eritrea: Eritrean Electricity Corporation (EEC)

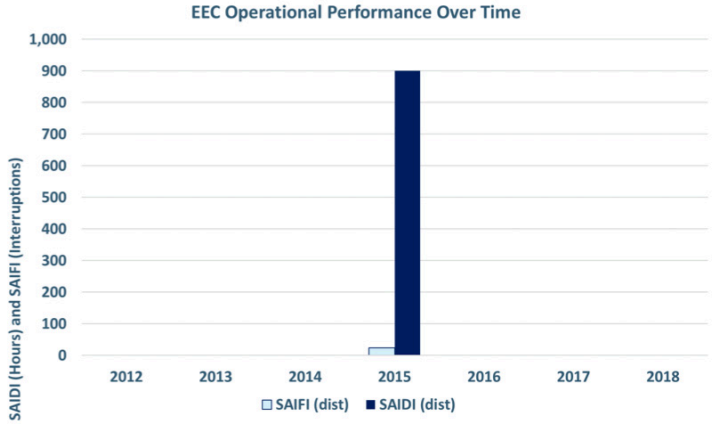
Scope of the utility's activities

EEC is a vertically integrated electricity utility in Eritrea, established in 2004.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2014)	141	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity (2014)	139	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	15.62%	%	% prepaid meters	No data	%
Affordability of connection fee	10.12	Mos.			

Utility performance





Financial performance

Indicator (2018)		EEC	VIU Range	Unit
Cost recovery	Op. cost rec.	No data	56.2% -132.2%	%
	Op. & DS CR	No data	22.2% -125.0%	%
	Op. & DS CR, no sub.	No data	21.5% -125.0%	%
Liquidity	Collection rate	No data	41.7% -106.0%	%
	Accounts rec. %	No data	7.6% -583.5%	%
	Receivable days	No data	28 -2130	Days
	Accounts pay. %	No data	10.2% -185.2%	%
	Payable days	No data	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	No data	(83.6)-31.2	Ratio
	Implied cost of debt	No data	0.4% -45.0%	%
Profitability	Net profit margin	No data	(235.7%)-47.1%	%
	EBITDA margin	No data	(54.8%)-128.3%	%

Operational performance

Indicator (2015)		EEC	VIU Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	41.0% -93.0%	%
	Availability (gas)	No data	47.5% -88.9%	%
	Availability (hydro)	No data	51.0% -97.0%	%
	Availability (RE)	No data	20.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	900.0	Not applicable	Hrs
	SAIFI, dist.	24.0	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	System losses	No data	6.6% -63.0%	%
	Time to connect	59	34 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	
	Financial statements published on utility website	
	Annual report published on utility website	
	Independent external audit of financial statements	
	Audit opinion unqualified	
	Annual report includes relevant KPIs	
Integrity and internal controls	Annual report describes Audit Committee activities	
	Utility has system of internal controls & audit	
	Utility uses eProcurement and open contracting	
Stakeholder relations	Utility website provides relevant info. to customers	
	Utility has customer service system in place	

Important developments

- *No financial data were available for EEC.*
- *Distribution SAIDI and SAIFI were only available for 2015 and were both substantially higher than the median for VIUs in that year.*

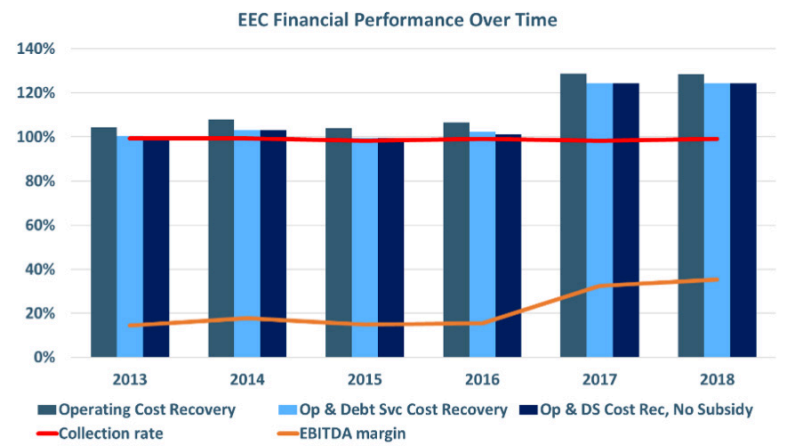
Eswatini: Eswatini Electricity Company (EEC)

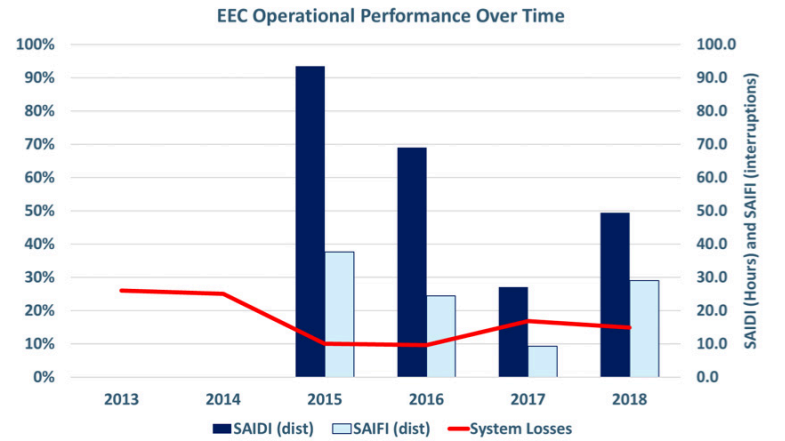
Scope of the utility's activities

EEC is a vertically integrated electricity utility in Eswatini, established in 2007.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	70	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	70	MW	Average cost of supply	1.84/0.139	LCU/USD per kWh
Number of employees	682	No.	Average tariff	2.27/0.172	LCU/USD per kWh
Customers per km electricity network	10.0	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		EEC	VIU Range	Unit
Cost recovery	Op. cost rec.	128.6%	56.2% -132.2%	%
	Op. & DS CR	124.3%	22.2% -125.0%	%
	Op. & DS CR, no sub.	124.3%	21.5% -125.0%	%
Liquidity	Collection rate	99.2%	41.7% -106.0%	%
	Accounts rec. %	7.6%	7.6% -583.5%	%
	Receivable days	28	28 -2130	Days
	Accounts pay. %	18.1%	10.2% -185.2%	%
	Payable days	66	37 -676	Days
	DSCR	7.4	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.9	(83.6)-31.2	Ratio
	Implied cost of debt	12.7%	0.4% -45.0%	%
Profitability	Net profit margin	25.8%	(235.7%)-47.1%	%
	EBITDA margin	35.3%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	49.4	Not applicable	Hrs
	SAIFI, dist.	28.9	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	14.9%	10.5% -58.4%	%
	Time to connect	137	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Best in class performance on minimising Receivable days.*
- *EEC shows good cost recovery, even with minimal subsidies.*

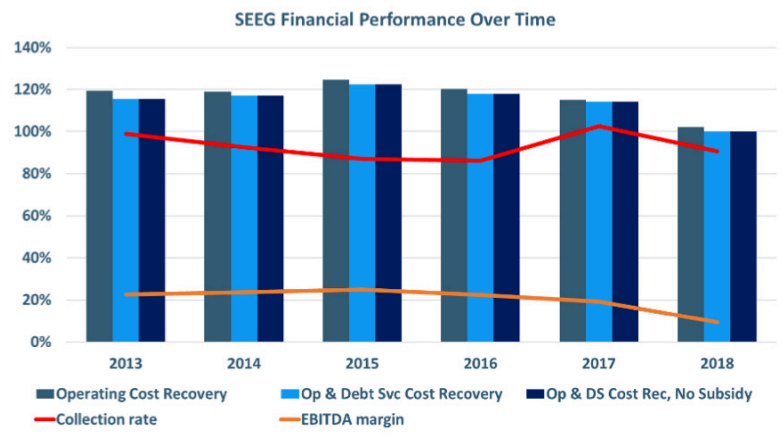
Gabon: La Société d'énergie et d'eau du Gabon (SEEG)

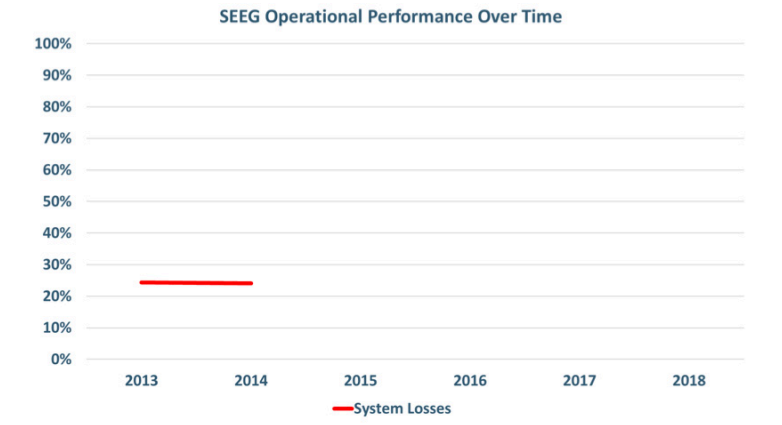
Scope of the utility's activities

SEEG is a vertically integrated electricity utility in Gabon, established in 1950. Veolia has operated SEEG under a concession agreement with the Government since 1997.

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity	460	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	460	MW	Average cost of supply	96.12/0.165	LCU/USD per kWh
Number of employees	1,982	No.	Average tariff	109.74/0.189	LCU/USD per kWh
Customers per km electricity network	67.1	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		SEEG	VIU Range	Unit
Cost recovery	Op. cost rec.	102.1%	56.2% -132.2%	%
	Op. & DS CR	100.1%	22.2% -125.0%	%
	Op. & DS CR, no sub.	100.1%	21.5% -125.0%	%
Liquidity	Collection rate	90.6%	41.7% -106.0%	%
	Accounts rec. %	71.9%	7.6% -583.5%	%
	Receivable days	262	28 -2130	Days
	Accounts pay. %	70.0%	10.2% -185.2%	%
	Payable days	256	37 -676	Days
	DSCR	2.5	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.2	(83.6)-31.2	Ratio
	Implied cost of debt	18.4%	0.4% -45.0%	%
Profitability	Net profit margin	2.0%	(235.7%)-47.1%	%
	EBITDA margin	9.4%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SEEG	VIU Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	85.6% -85.8%	%
	Availability (gas)	No data	91.5% -91.5%	%
	Availability (hydro)	No data	83.1% -92.3%	%
	Availability (RE)	No data	20.8% -20.8%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses (2014)	24.0%	6.9% -47.3%	%
	Time to connect	148	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	No

Important developments

- *SEEG has strong cost recovery, resulting in the utility being consistently profitable.*
- *However, collection rates have declined in recent years and accounts receivable have accumulated. No bad debt expense has been explicitly recognised, although it seems unlikely that the full balance is recoverable.*

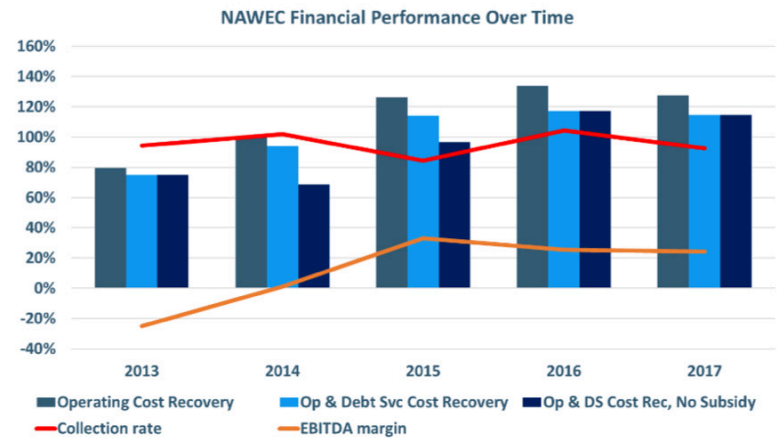
The Gambia: Gambia Water & Electricity Company (NAWEC)

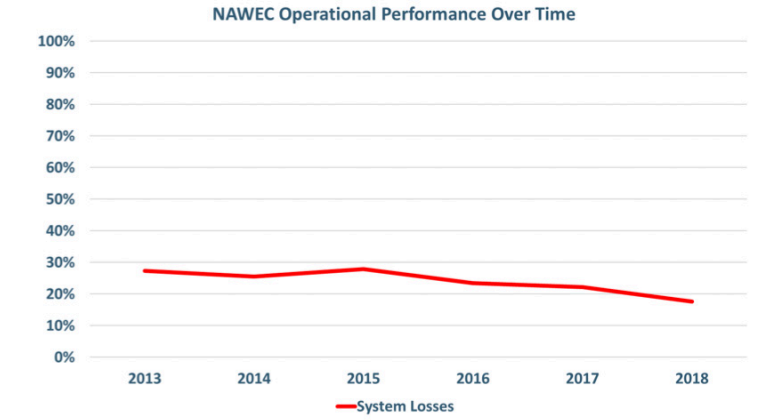
Scope of the utility's activities

NAWEC is a vertically integrated electricity utility in The Gambia, established in 1996.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	103	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	44	MW	Average cost of supply	10.51/0.229	LCU/USD per kWh
Number of employees (2013)	1,738	No.	Average tariff	11.89/0.260	LCU/USD per kWh
Customers per km electricity network (2013)	435.7	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	92.40%	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2017)		NAWEC	VIU Range	Unit
Cost recovery	Op. cost rec.	127.5%	60.1% -154.8%	%
	Op. & DS CR	114.7%	59.8% -151.3%	%
	Op. & DS CR, no sub.	114.7%	51.6% -135.9%	%
Liquidity	Collection rate	92.4%	56.5% -115.7%	%
	Accounts rec. %	40.8%	7.4% -516.6%	%
	Receivable days	149	27 -1886	Days
	Accounts pay. %	58.9%	8.5% -309.1%	%
	Payable days	215	31 -1128	Days
	DSCR	(1.8)	(74.8)-5.0	Ratio
Capital structure	Maturity matching	1.0	(12.0)-8.2	Ratio
	Implied cost of debt	2.6%	0.2% -21.2%	%
Profitability	Net profit margin	0.7%	(67.4%)-28.9%	%
	EBITDA margin	24.0%	(47.1%)-64.8%	%

Operational performance

Indicator (2018)		NAWEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	17.6%	10.5% -58.4%	%
	Time to connect	78	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Substantial improvement in cost recovery indicators and hence also in profitability in recent years. This is primarily driven by lower fuel costs.*

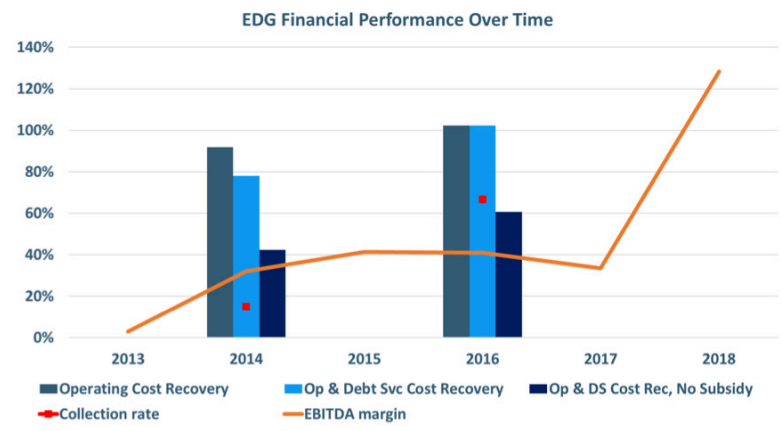
Guinea: Electricité de Guinée (EDG)

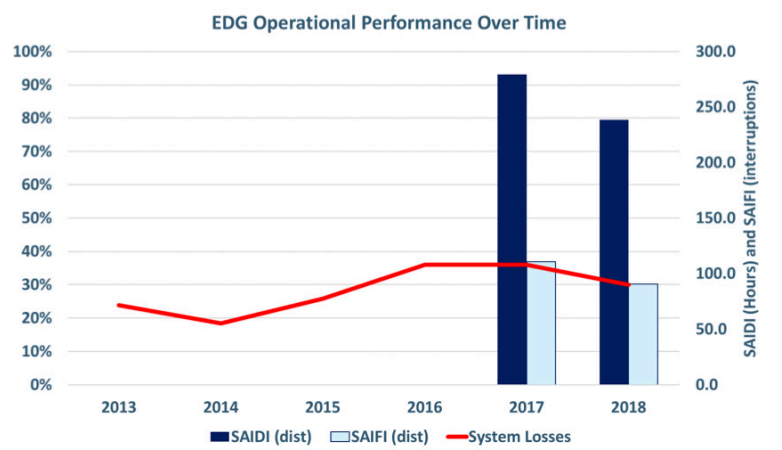
Scope of the utility's activities

EDG is a vertically integrated electricity utility in Guinea, established in 2001.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	594	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	503	MW	Average cost of supply	1,782.49/0.198	LCU/USD per kWh
Number of employees (2016)	1,582	No.	Average tariff	735.56/0.082	LCU/USD per kWh
Customers per km electricity network	44.8	No./km	% customers with meters	18%	%
Cost of subsistence consumption	1.06%	%	% prepaid meters	7%	%
Affordability of connection fee	70.77	Mos.			

Utility performance





Financial performance

Indicator (2018)		EDG	VIU Range	Unit
Cost recovery	Op. cost rec. (2016)	102.3%	59.0% -149.3%	%
	Op. & DS CR (2016)	102.3%	58.5% -145.3%	%
	Op. & DS CR, no sub. (2016)	60.6%	54.2% -132.3%	%
Liquidity	Collection rate (2016)	66.6%	44.4% -117.6%	%
	Accounts rec. %	156.9%	7.6% -583.5%	%
	Receivable days	573	28 -2130	Days
	Accounts pay. %	85.9%	10.2% -185.2%	%
	Payable days	314	18 -676	Days
	DSCR	(1.5)	(54.2)-84.4	Ratio
Capital structure	Maturity matching	1.6	(83.6)-31.2	Ratio
	Implied cost of debt	1.6%	0.4% -45.0%	%
Profitability	Net profit margin	47.1%	(235.7%)-47.1%	%
	EBITDA margin	128.3%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EDG	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	238.3	Not applicable	Hrs
	SAIFI, dist.	90.7	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	30.0%	10.5% -58.4%	%
	Time to connect	69	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Substantial operating cost subsidy results in cost recovery indicators being much higher than they otherwise would be.*
- *Erratic collections (where data are available), which are also reflected in the volatility in accounts receivable, although Receivable days are generally high in all years.*

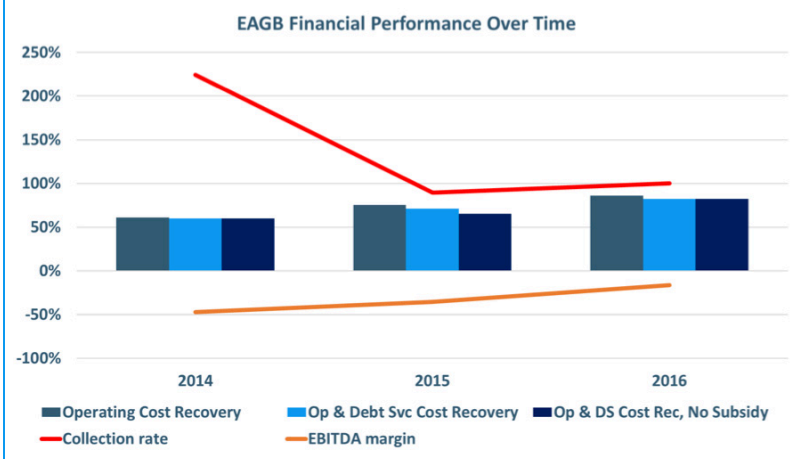
Guinea-Bissau: Electricidade e Aguas de Guine-Bissau (EAGB)

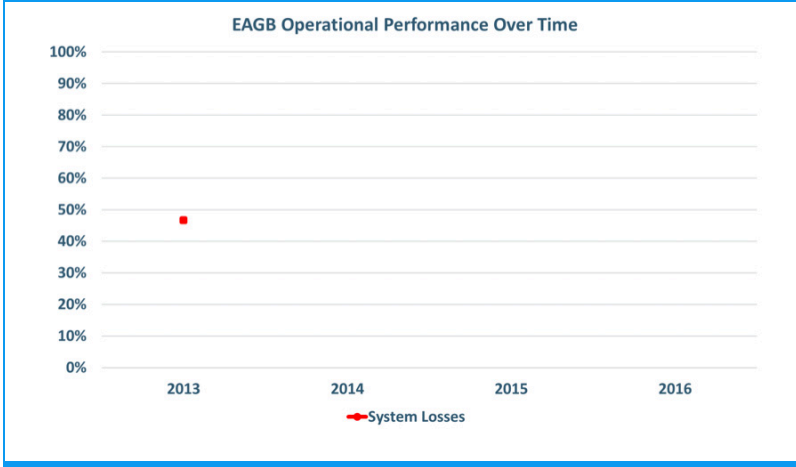
Scope of the utility's activities

EAGB is a vertically integrated electricity utility in Guinea-Bissau, established in 1983.

Utility information (2014)	Data	Unit	Utility information (2014)	Data	Unit
Generation capacity	11	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	11	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	343	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	64.3	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2016)		EAGB	VIU Range	Unit
Cost recovery	Op. cost rec.	85.8%	59.0% -149.3%	%
	Op. & DS CR	82.0%	58.5% -145.3%	%
	Op. & DS CR, no sub.	82.0%	54.2% -132.3%	%
Liquidity	Collection rate	100.0%	44.4% -117.6%	%
	Accounts rec. %	13.6%	8.7% -518.9%	%
	Receivable days	50	32 -1894	Days
	Accounts pay. %	18.6%	2.1% -298.4%	%
	Payable days	68	8 -1089	Days
	DSCR	(3.1)	(75.5)-3.6	Ratio
Capital structure	Maturity matching	(0.1)	(2.1)-3.8	Ratio
	Implied cost of debt	4.3%	0.0% -16.9%	%
Profitability	Net profit margin	(23.2%)	(121.6%)-22.1%	%
	EBITDA margin	(16.5%)	(50.0%)-74.8%	%

Operational performance

Indicator (2018)		EAGB	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses (2013)	46.6%	7.1% -46.6%	%
	Time to connect	257	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Low cost recovery results in EAGB being loss-making.*
- *Where this situation has persisted over time, the utility has a substantial negative equity balance.*

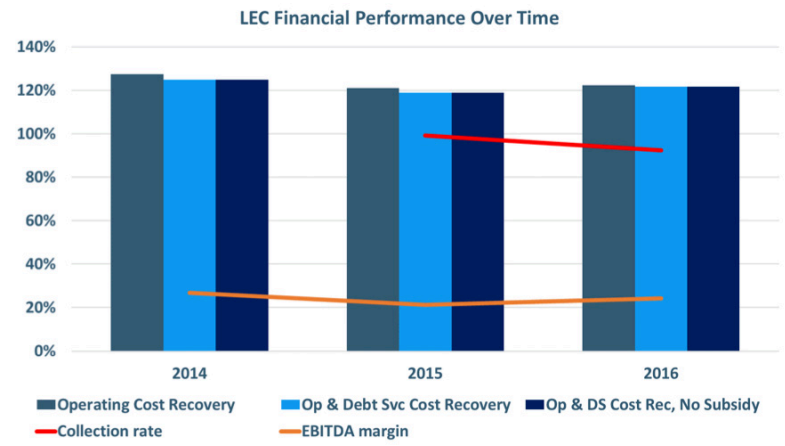
Lesotho: Lesotho Electricity Company (LEC)

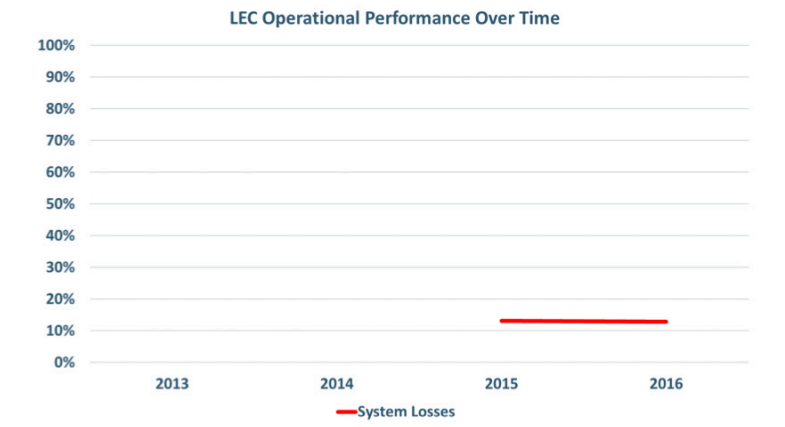
Scope of the utility's activities

LEC is a vertically integrated electricity utility in Lesotho, established in 1969.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2015)	72	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity (2015)	72	MW	Average cost of supply (2016)	1.74/0.124	LCU/USD per kWh
Number of employees	No data	No.	Average tariff (2016)	2.12/0.151	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	6.28%	%	% prepaid meters	No data	%
Affordability of connection fee	3.20	Mos.			

Utility performance





Financial performance

Indicator (2016)		LEC	VIU Range	Unit
Cost recovery	Op. cost rec.	122.3%	59.0% -149.3%	%
	Op. & DS CR	121.7%	58.5% -145.3%	%
	Op. & DS CR, no sub.	121.7%	54.2% -132.3%	%
Liquidity	Collection rate	92.5%	44.4% -117.6%	%
	Accounts rec. %	13.5%	8.7% -518.9%	%
	Receivable days	49	32 -1894	Days
	Accounts pay. %	2.1%	2.1% -298.4%	%
	Payable days	8	8 -1089	Days
	DSCR	(75.5)	(75.5)-3.6	Ratio
Capital structure	Maturity matching	1.0	(2.1)-3.8	Ratio
	Implied cost of debt	2.9%	0.0% -16.9%	%
Profitability	Net profit margin	10.0%	(121.6%)-22.1%	%
	EBITDA margin	24.2%	(50.0%)-74.8%	%

Operational performance

Indicator (2018)		LEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses (2016)	12.9%	9.6% -37.6%	%
	Time to connect	114	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *LEC recovers its costs and is profitable in all years analysed.*

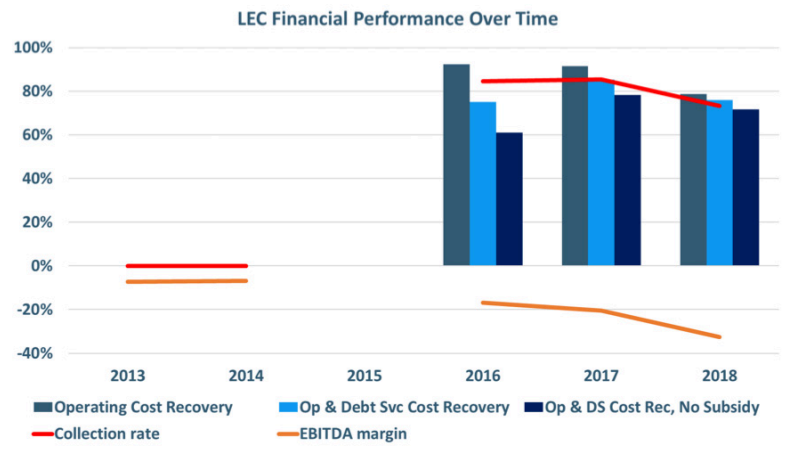
Liberia: Liberia Electricity Corporation (LEC)

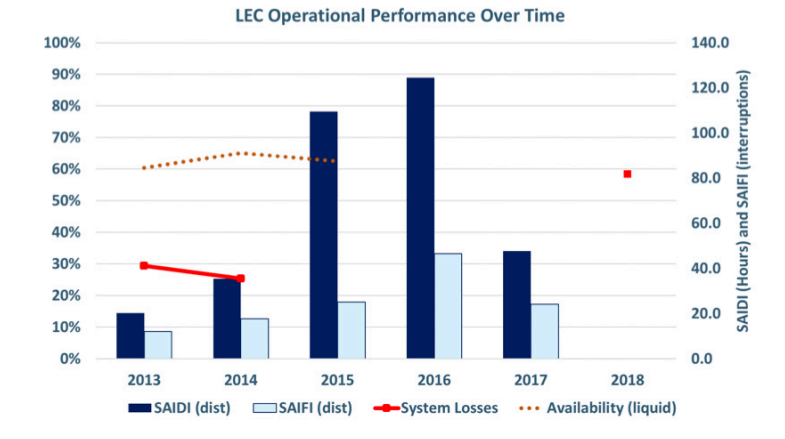
Scope of the utility's activities

LEC is a vertically integrated electricity utility in Liberia, established in 1973.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	126	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity	126	MW	Average cost of supply	0.52/0.523	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	0.36/0.363	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	38.04%	%	% prepaid meters	No data	%
Affordability of connection fee	1.72	Mos.			

Utility performance





Financial performance

Indicator (2018)		LEC	VIU Range	Unit
Cost recovery	Op. cost rec.	78.8%	56.2% -132.2%	%
	Op. & DS CR	75.8%	22.2% -125.0%	%
	Op. & DS CR, no sub.	71.7%	21.5% -125.0%	%
Liquidity	Collection rate	73.2%	41.7% -106.0%	%
	Accounts rec. %	52.1%	7.6% -583.5%	%
	Receivable days	190	28 -2130	Days
	Accounts pay. %	44.9%	10.2% -185.2%	%
	Payable days	164	37 -676	Days
	DSCR	(45.7)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.0	(83.6)-31.2	Ratio
	Implied cost of debt	2.2%	0.4% -45.0%	%
Profitability	Net profit margin	(9.9%)	(235.7%)-47.1%	%
	EBITDA margin	(32.6%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		LEC	VIU Range	Unit
Reliability	Availability (solid)	No data	31.2% -31.2%	%
	Availability (liquid)	62.5%	41.0% -93.0%	%
	Availability (gas)	No data	47.5% -91.5%	%
	Availability (hydro)	No data	44.0% -100.0%	%
	Availability (RE)	No data	18.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist. (2017)	47.6	Not applicable	Hrs
	SAIFI, dist. (2017)	24.1	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	58.4%	10.5% -58.4%	%
	Time to connect	No data	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *Revenues at LEC are insufficiently high to cover costs. Large operational subsidies in 2016 and 2017 contribute towards a higher cost recovery metric when these subsidies are included*
- *Receivable days have increased from 77 days in 2016 to 190 days in 2018, suggesting that already weak profitability will be further hit by bad debt charges over the coming years.*

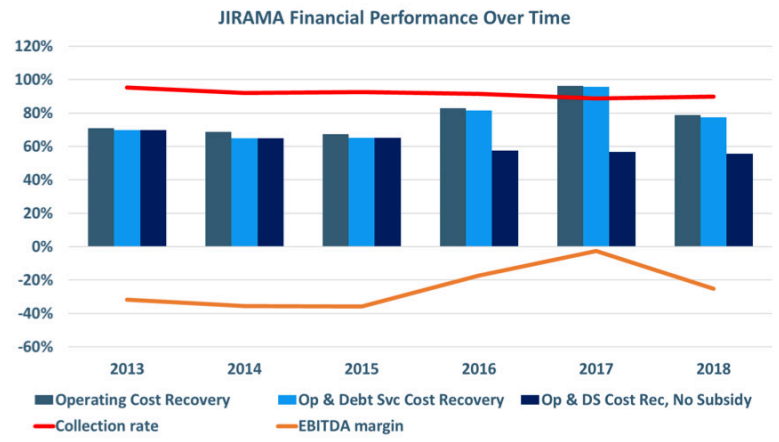
Madagascar: Jiro Sy Rano Malagasy (JIRAMA)

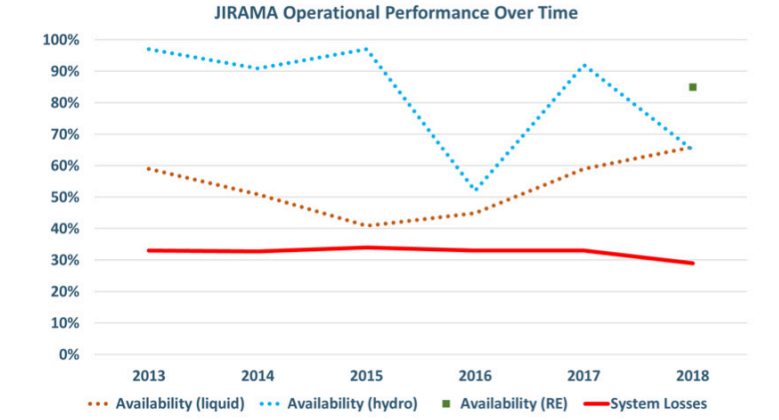
Scope of the utility's activities

JIRAMA is a vertically integrated electricity utility in Madagascar, established in 1975.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	844	MW	Policy to support low-volume customers	%	Y/N
Peak dispatchable generation capacity	824	MW	Average cost of supply	1,131.07/0.337	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	628.32/0187	LCU/USD per kWh
Customers per km electricity network	36.1	No./km	% customers with meters	No data	%
Cost of subsistence consumption	31.25%	%	% prepaid meters	No data	%
Affordability of connection fee	26.69	Mos.			

Utility performance





Financial performance

Indicator (2018)		JIRAMA	VIU Range	Unit
Cost recovery	Op. cost rec.	78.8%	56.2% -132.2%	%
	Op. & DS CR	77.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	55.6%	21.5% -125.0%	%
Liquidity	Collection rate	89.9%	41.7% -106.0%	%
	Accounts rec. %	53.6%	7.6% -583.5%	%
	Receivable days	196	28 -2130	Days
	Accounts pay. %	112.1%	10.2% -185.2%	%
	Payable days	409	37 -676	Days
	DSCR	(0.1)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.7	(83.6)-31.2	Ratio
	Implied cost of debt	19.6%	0.4% -45.0%	%
Profitability	Net profit margin	(39.1%)	(235.7%)-47.1%	%
	EBITDA margin	(25.2%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		JIRAMA	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	66.0%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	65.0%	59.0% -96.6%	%
	Availability (RE)	85.0%	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	29.0%	10.5% -58.4%	%
	Time to connect	450	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	No

Important developments

- *Even with subsidies cost recovery is low and JIRAMA is consistently loss-making.*
- *Outstanding debtors and creditors are both high, but the bad debt expense recognised is very low. It seems unlikely that the full accounts receivable balance is recoverable.*
- *Note that JIRAMA is also a water utility and the analysis presented above is for the whole utility.*

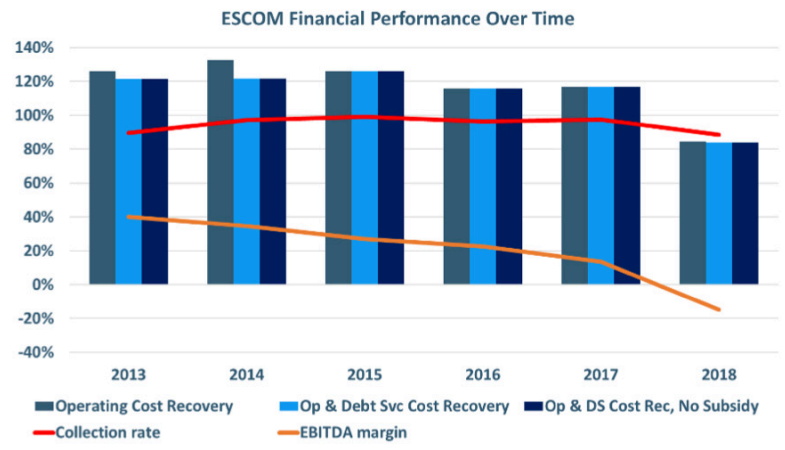
Malawi: Electricity Supply Corporation of Malawi (ESCOM)

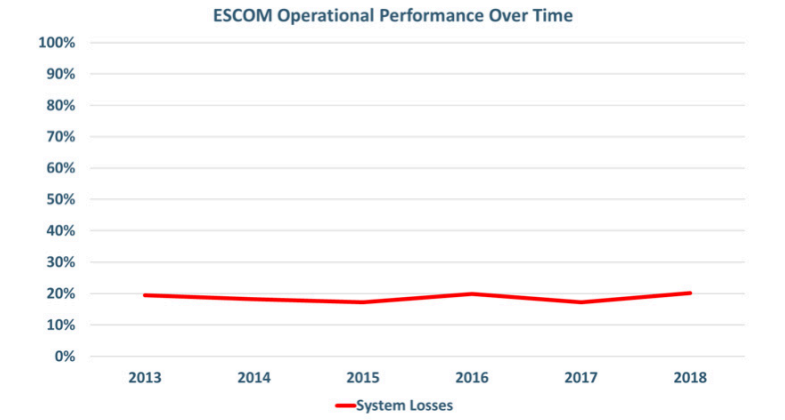
Scope of the utility's activities

ESCOM is a vertically integrated electricity utility in Malawi, established in 1984.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	367	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity	367	MW	Average cost of supply	73.53/0.100	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	60.31/0.082	LCU/USD per kWh
Customers per km electricity network (2014)	18.7	No./km	% customers with meters	No data	%
Cost of subsistence consumption	4.08%	%	% prepaid meters	No data	%
Affordability of connection fee	3.14	Mos.			

Utility performance





Financial performance

Indicator (2018)		ESCOM	VIU Range	Unit
Cost recovery	Op. cost rec.	84.6%	56.2% -132.2%	%
	Op. & DS CR	84.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	84.0%	21.5% -125.0%	%
Liquidity	Collection rate	88.4%	41.7% -106.0%	%
	Accounts rec. %	28.4%	7.6% -583.5%	%
	Receivable days	104	28 -2130	Days
	Accounts pay. %	75.0%	10.2% -185.2%	%
	Payable days	274	37 -676	Days
	DSCR	(73.1)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.1	(83.6)-31.2	Ratio
	Implied cost of debt	0.9%	0.4% -45.0%	%
Profitability	Net profit margin	(14.4%)	(235.7%)-47.1%	%
	EBITDA margin	(14.9%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		ESCOM	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	20.1%	10.5% -58.4%	%
	Time to connect	127	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	

Important developments

- *ESCOM accounts show full recovery and profitability until 2017.*
- *In 2018 financial performance deteriorated as a result of higher generation costs from IPPs, EPPs, and imports. ESCOM's financial statements suggests that these costs were not realised in its accounts prior to a recent restructuring of the market.*
- *Employee and cost of goods and services consumers at Head Office also increased by >50% in 2018 compared to 2017.*

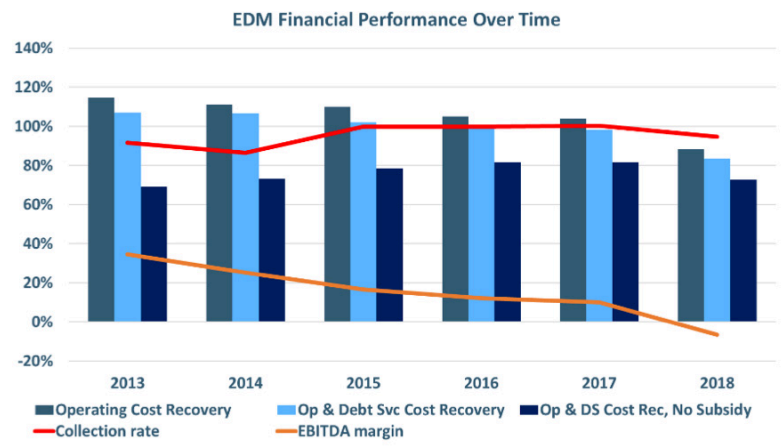
Mali: Energie du Mali (EDM)

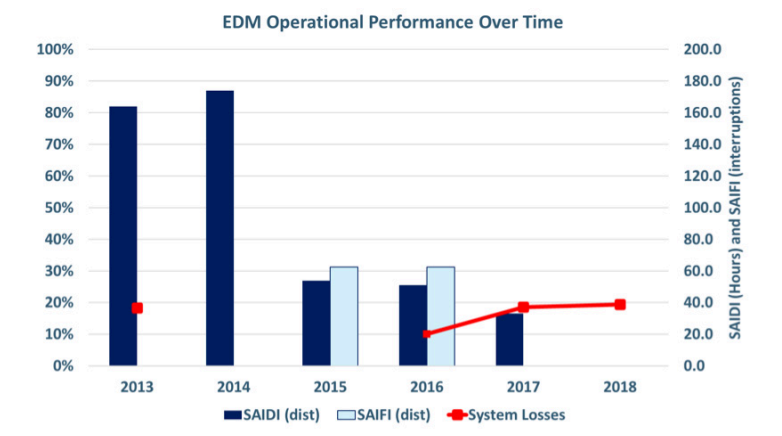
Scope of the utility's activities

EDM is a vertically integrated electricity utility in Mali, established in 1960.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	719.9	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity	353.0	MW	Average cost of supply	144.91/0.261	LCU/USD per kWh
Number of employees (2014)	726	No.	Average tariff	105.33/0.190	LCU/USD per kWh
Customers per km electricity network	64.1	No./km	% customers with meters	No data	%
Cost of subsistence consumption	4.07%	%	% prepaid meters	No data	%
Affordability of connection fee	1.10	Mos.			

Utility performance





Financial performance

Indicator (2018)		EDM	VIU Range	Unit
Cost recovery	Op. cost rec.	88.2%	56.2% -132.2%	%
	Op. & DS CR	83.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	72.7%	21.5% -125.0%	%
Liquidity	Collection rate	94.6%	41.7% -106.0%	%
	Accounts rec. %	48.6%	7.6% -583.5%	%
	Receivable days	178	28 -2130	Days
	Accounts pay. %	167.7%	10.2% -185.2%	%
	Payable days	612	37 -676	Days
	DSCR	1.5	(76.9)-17.4	Ratio
Capital structure	Maturity matching	2.6	(83.6)-31.2	Ratio
	Implied cost of debt	6.0%	0.4% -45.0%	%
Profitability	Net profit margin	(34.6%)	(235.7%)-47.1%	%
	EBITDA margin	(6.5%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EDM	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist. (2017)	33.0	Not applicable	Hrs
	SAIFI, dist. (2016)	62.5	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses	19.4%	10.5% -58.4%	%
	Time to connect	120	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *EDM's revenues do cover operating costs and debt service costs through 2017, but this is dependent on an operating subsidy that it receives.*
- *Despite this, EDM is not profitable and the company's net assets, while remaining positive, have declined substantially in recent years.*

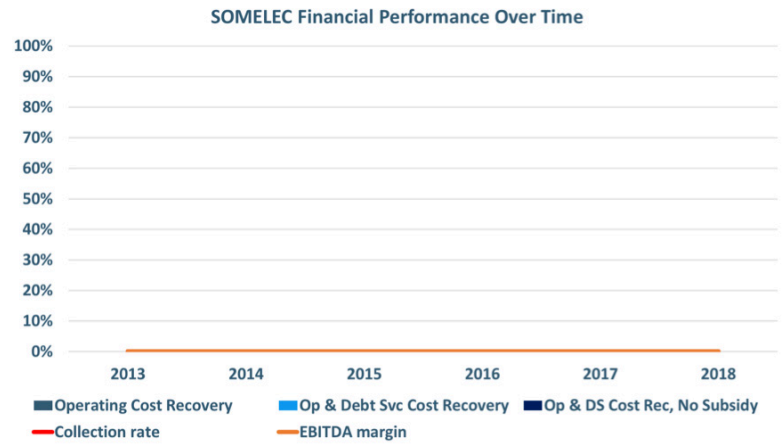
Mauritania: Société Mauritanienne d'Électricité (SOMELEC)

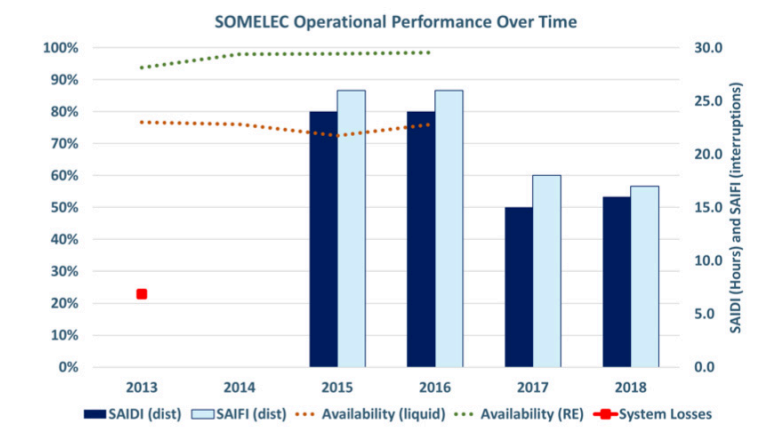
Scope of the utility's activities

SOMELEC is a vertically integrated electricity utility in Mauritania, established in 2001.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2016)	184	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2016)	162	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees (2016)	1,741	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	29.94%	%	% prepaid meters	No data	%
Affordability of connection fee	0.83	Mos.			

Utility performance





Financial performance

Indicator (2018)		SOMELEC	VIU Range	Unit
Cost recovery	Op. cost rec.	No data	56.2% -132.2%	%
	Op. & DS CR	No data	22.2% -125.0%	%
	Op. & DS CR, no sub.	No data	21.5% -125.0%	%
Liquidity	Collection rate	No data	41.7% -106.0%	%
	Accounts rec. %	No data	7.6% -583.5%	%
	Receivable days	No data	28 -2130	Days
	Accounts pay. %	No data	10.2% -185.2%	%
	Payable days	No data	37 -676	Days
	DSCR	No data	(76.9)-17.4	Ratio
Capital structure	Maturity matching	No data	(83.6)-31.2	Ratio
	Implied cost of debt	No data	0.4% -45.0%	%
Profitability	Net profit margin	No data	(235.7%)-47.1%	%
	EBITDA margin	No data	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		SOMELEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid) [2016]	76.1%	43.0% -95.3%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE) [2016]	98.6%	22.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	16.0	Not applicable	Hrs
	SAIFI, dist.	17.0	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	System losses (2013)	22.9%	7.1% -46.6%	%
	Time to connect	67	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *No financial data were available for SOMELEC.*
- *SOMELEC was one of the best performers in terms of availability of renewable energy generators through 2016, the last year for which data were available.*

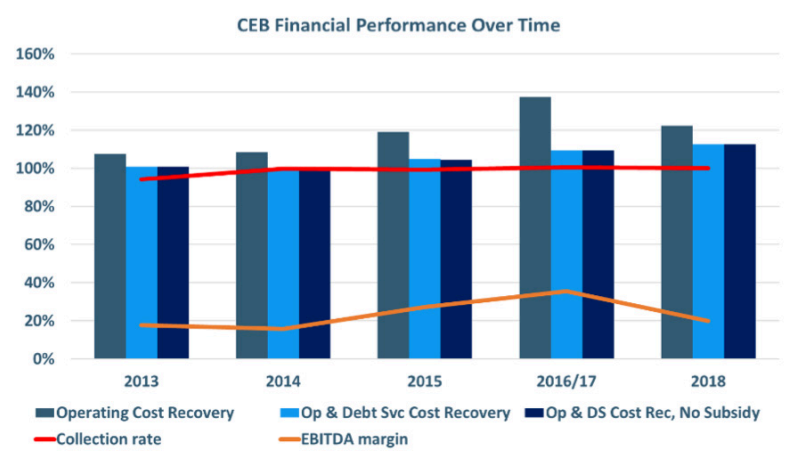
Mauritius: Central Electricity Board (CEB)

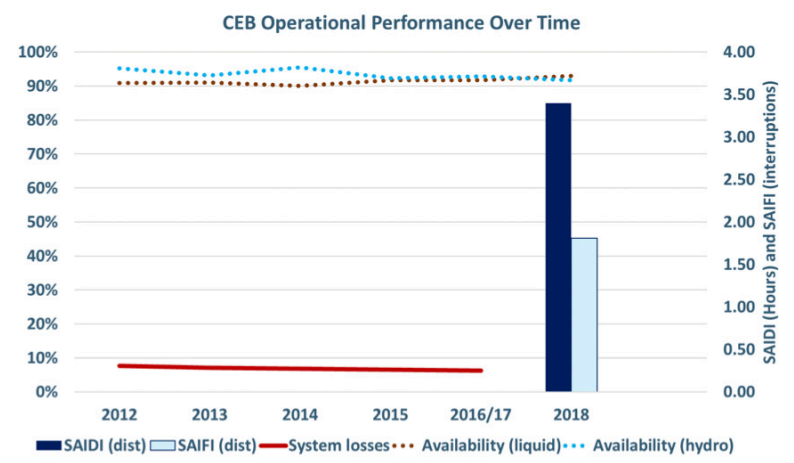
Scope of the utility's activities

CEB is a vertically integrated electricity utility in Mauritius, established in 1952.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	498	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	482	MW	Average cost of supply	5.18/0.153	LCU/USD per kWh
Number of employees	2,106	No.	Average tariff	5.84/0.172	LCU/USD per kWh
Customers per km electricity network	48.5	No./km	% customers with meters	100%	%
Cost of subsistence consumption	0.31%	%	% prepaid meters (2015)	0.1%	%
Affordability of connection fee	0.03	Mos.			

Utility performance





Financial performance

Indicator (2018)		CEB	VIU Range	Unit
Cost recovery	Op. cost rec.	122.5%	56.2% -132.2%	%
	Op. & DS CR	112.7%	22.2% -125.0%	%
	Op. & DS CR, no sub.	112.7%	21.5% -125.0%	%
Liquidity	Collection rate	100.0%	41.7% -106.0%	%
	Accounts rec. %	15.0%	7.6% -583.5%	%
	Receivable days	55	28 -2130	Days
	Accounts pay. %	14.3%	10.2% -185.2%	%
	Payable days	52	37 -676	Days
	DSCR	1.2	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.8	(83.6)-31.2	Ratio
	Implied cost of debt	1.9%	0.4% -45.0%	%
Profitability	Net profit margin	12.8%	(235.7%)-47.1%	%
	EBITDA margin	20.0%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		CEB	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	93.0%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	91.7%	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist. (see below)	3.4	Not applicable	Hrs
	SAIFI, dist. (see below)	1.8	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	6.3%	6.3% -35.9%	%
	Time to connect (see below)	81	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *CEB has strong financial performance and financial position indicators throughout the analysed period.*
- *CEB revised its financial year from January to December to July to June in 2016/2017; 2016/2017 in the figures above therefore represents the 18-month period from January 2016 to June 2017.*
- *CEB reports distribution SAIDI and SAIFI by distribution area; in 2018, the North distribution area had SAIDI of 2.5 and SAIIFI of 1.13; the Centre area had SAIDI of 3.32 and SAIFI of 1.19; and the West area had SAIDI of 4.39 and SAIFI of 3.1.*
- *The World Bank's Doing Business indicators report that, in 2018, time to connect new customers in Mauritius is 81 days; CEB reports that their time to connect new customers in 2018 was 6 days.*

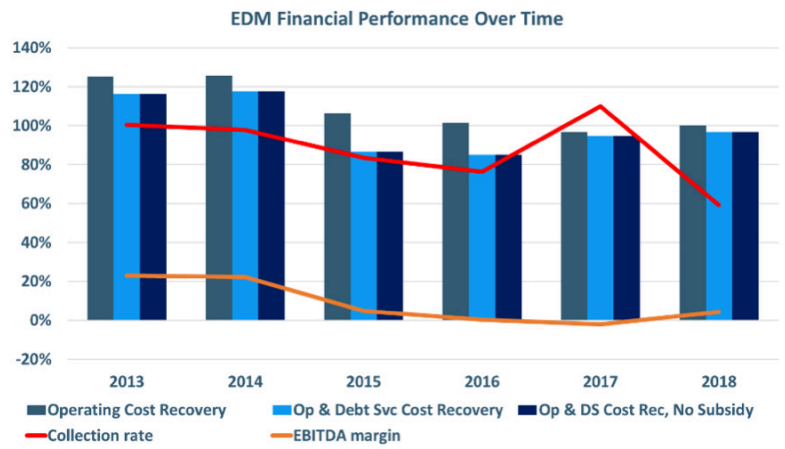
Mozambique: Electricidade de Moçambique (EDM)

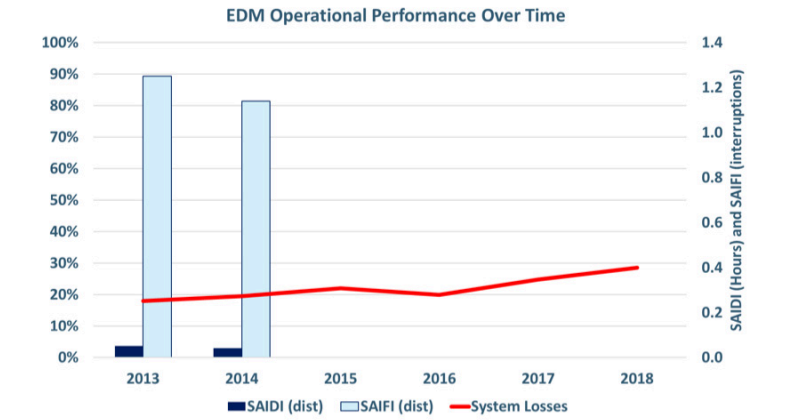
Scope of the utility's activities

EDM is a vertically integrated electricity utility in Mozambique, established in 1977.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	333	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	333	MW	Average cost of supply	9.80/0.162	LCU/USD per kWh
Number of employees (2015)	3,883	No.	Average tariff	9.09/0.150	LCU/USD per kWh
Customers per km electricity network (2015)	69.3	No./km	% customers with meters	No data	%
Cost of subsistence consumption	8.07%	%	% prepaid meters	No data	%
Affordability of connection fee	2.68%	Mos.			

Utility performance





Financial performance

Indicator (2018)		EDM	VIU Range	Unit
Cost recovery	Op. cost rec.	100.0%	56.2% -132.2%	%
	Op. & DS CR	96.6%	22.2% -125.0%	%
	Op. & DS CR, no sub.	96.6%	21.5% -125.0%	%
Liquidity	Collection rate	59.1%	41.7% -106.0%	%
	Accounts rec. %	66.0%	7.6% -583.5%	%
	Receivable days	241	28 -2130	Days
	Accounts pay. %	101.0%	10.2% -185.2%	%
	Payable days	369	37 -676	Days
	DSCR	(72.2)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.1	(83.6)-31.2	Ratio
	Implied cost of debt	45.0%	0.4% -45.0%	%
Profitability	Net profit margin	(11.1%)	(235.7%)-47.1%	%
	EBITDA margin	4.4%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EDM	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist. (2014)	0.04	Not applicable	Hrs
	SAIFI, dist. (2014)	1.1	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	28.6%	10.5% -58.4%	%
	Time to connect	54	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Lower collections in 2015 and 2016 has resulted in an increase in the outstanding accounts receivable balance.*
- *Cost recovery indicators have dropped gradually in recent years, also resulting in declining profitability.*
- *EDM has made a net loss every year since 2013.*

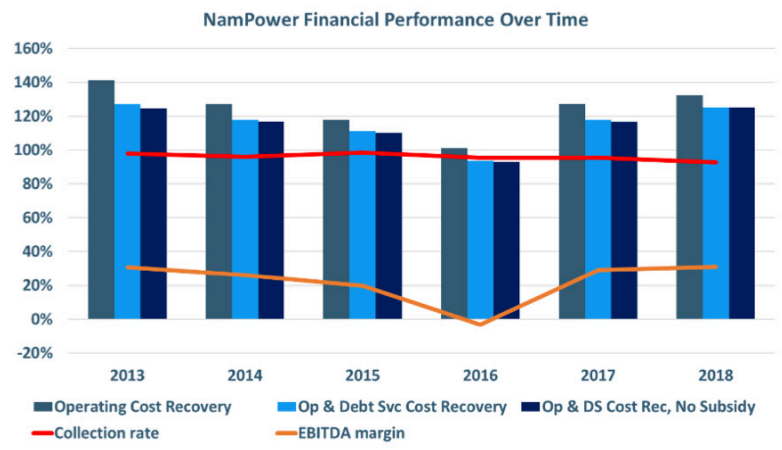
Namibia: NamPower

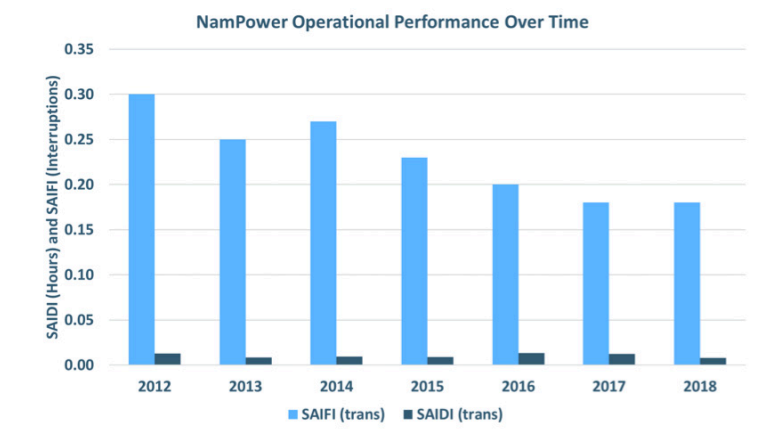
Scope of the utility's activities

NamPower is a vertically integrated electricity utility in Namibia, established in 1964.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	490	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	490	MW	Average cost of supply	1.25/0.091	LCU/USD per kWh
Number of employees	1,086	No.	Average tariff	1.54/0.112	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		Nam-Power	VIU Range	Unit
Cost recovery	Op. cost rec.	132.2%	56.2% -132.2%	%
	Op. & DS CR	125.0%	22.2% -125.0%	%
	Op. & DS CR, no sub.	125.0%	21.5% -125.0%	%
Liquidity	Collection rate	92.6%	41.7% -106.0%	%
	Accounts rec. %	25.7%	7.6% -583.5%	%
	Receivable days	94	28 -2130	Days
	Accounts pay. %	27.8%	10.2% -185.2%	%
	Payable days	102	37 -676	Days
	DSCR	2.2	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.7	(83.6)-31.2	Ratio
	Implied cost of debt	10.6%	0.4% -45.0%	%
Profitability	Net profit margin	18.6%	(235.7%)-47.1%	%
	EBITDA margin	30.9%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		Nam-Power	VIU Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	85.6% -85.8%	%
	Availability (gas)	No data	91.5% -91.5%	%
	Availability (hydro)	No data	83.1% -92.3%	%
	Availability (RE)	No data	20.8% -20.8%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	0.01	Not applicable	Hrs
	SAIFI, trans.	0.18	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -58.4%	%
	Time to connect	No data	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Poor financial performance through 2016 was partly because cost recovery had declined and partly because of an impairment loss and bad debt write-off.*
- *Financial performance has since improved, with higher cost recovery and profitability indicators.*

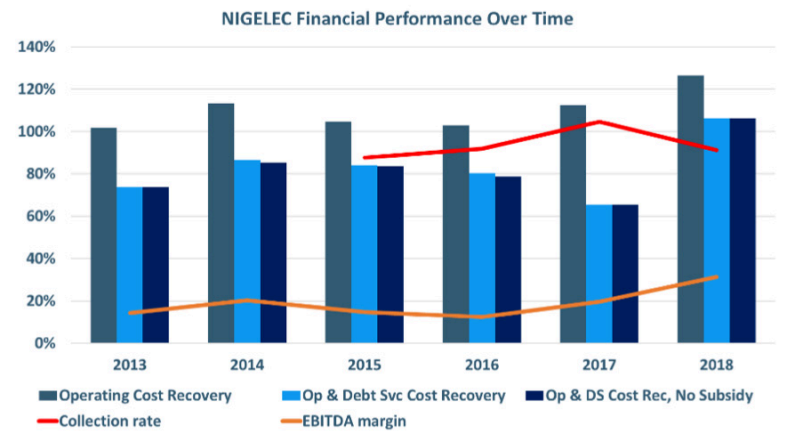
Niger: Société Nigérienne d'Electricité (NIGELEC)

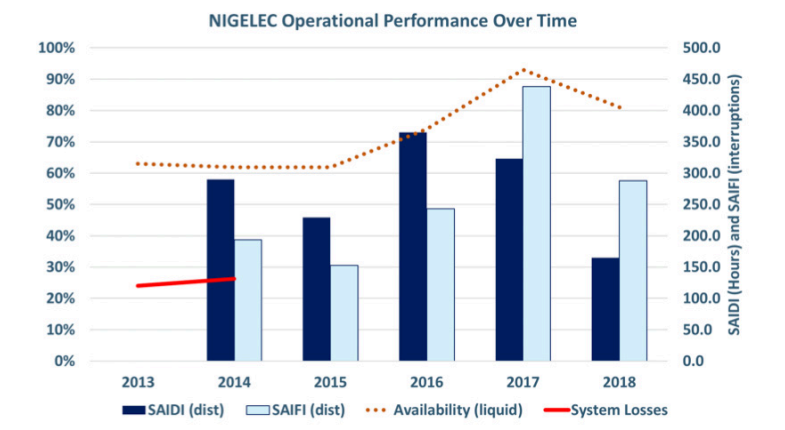
Scope of the utility's activities

NIGELEC is a vertically integrated electricity utility in Niger, established in 1968.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	177	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity	132	MW	Average cost of supply	100.51/0.181	LCU/USD per kWh
Number of employees	645	No.	Average tariff	106.68/0.192	LCU/USD per kWh
Customers per km electricity network (2017)	34.4	No./km	% customers with meters	100%	%
Cost of subsistence consumption	9.92%	%	% prepaid meters	8%	%
Affordability of connection fee	1.96	Mos.			

Utility performance





Financial performance

Indicator (2018)		NIGELEC	VIU Range	Unit
Cost recovery	Op. cost rec.	126.3%	56.2% -132.2%	%
	Op. & DS CR	106.1%	22.2% -125.0%	%
	Op. & DS CR, no sub.	106.1%	21.5% -125.0%	%
Liquidity	Collection rate	91.3%	41.7% -106.0%	%
	Accounts rec. %	36.9%	7.6% -583.5%	%
	Receivable days	135	28 -2130	Days
	Accounts pay. %	44.8%	10.2% -185.2%	%
	Payable days	163	37 -676	Days
	DSCR	0.6	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.0	(83.6)-31.2	Ratio
	Implied cost of debt	3.7%	0.4% -45.0%	%
Profitability	Net profit margin	5.3%	(235.7%)-47.1%	%
	EBITDA margin	31.3%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		NIGELEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	81.0%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	165.0	Not applicable	Hrs
	SAIFI, dist.	288.0	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses (2014)	26.3%	6.9% -47.3%	%
	Time to connect	97	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *NIGELEC covers its operating costs and does, on average over the period analysed, make a small profit. However, this analysis is based only on a very simplified P&L.*

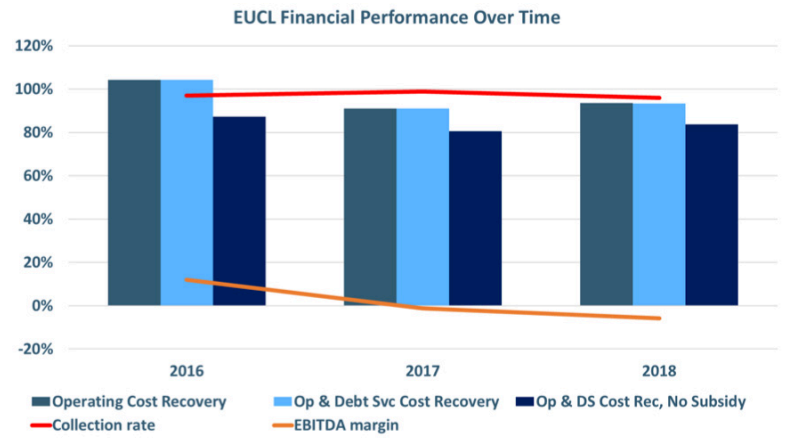
Rwanda: Energy Utility Corporation Limited (EUCL)

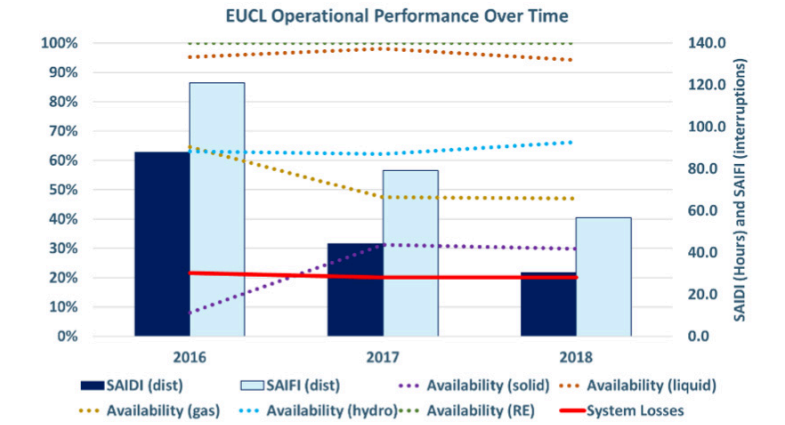
Scope of the utility's activities

EUCL is a vertically integrated electricity utility in Rwanda, established in 2014. It is a subsidiary of the Rwanda Energy Group (REG).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2017)	205	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2017)	187	MW	Average cost of supply	171.45/0.201	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	138.34/0.162	LCU/USD per kWh
Customers per km electricity network	1,024.4	No./km	% customers with meters	100%	%
Cost of subsistence consumption	20.21%	%	% prepaid meters	91%	%
Affordability of connection fee	2.07	Mos.			

Utility performance





Financial performance

Indicator (2018)		EUCL	VIU Range	Unit
Cost recovery	Op. cost rec.	93.6%	56.2% -132.2%	%
	Op. & DS CR	93.3%	22.2% -125.0%	%
	Op. & DS CR, no sub.	83.7%	21.5% -125.0%	%
Liquidity	Collection rate	95.9%	41.7% -106.0%	%
	Accounts rec. %	31.9%	7.6% -583.5%	%
	Receivable days	116	28 -2130	Days
	Accounts pay. %	41.4%	10.2% -185.2%	%
	Payable days	151	37 -676	Days
	DSCR	(26.0)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.0	(83.6)-31.2	Ratio
	Implied cost of debt	2.3%	0.4% -45.0%	%
Profitability	Net profit margin	(10.8%)	(235.7%)-47.1%	%
	EBITDA margin	(5.8%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EUCL	VIU Range	Unit
Reliability	Availability (solid)	29.8%	29.8% -29.8%	%
	Availability (liquid)	94.2%	43.0% -94.2%	%
	Availability (gas)	47.0%	47.0% -91.5%	%
	Availability (hydro)	66.2%	59.0% -96.6%	%
	Availability (RE)	100.0%	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	30.5	Not applicable	Hrs
	SAIFI, dist.	56.6	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	20.0%	10.5% -58.4%	%
	Time to connect (2017)	30	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Even with operating subsidies in place EUCL does not fully recover cost in all years.*
- *EUCL was loss-making in 2017 and 2018 and net assets almost halved over this period.*

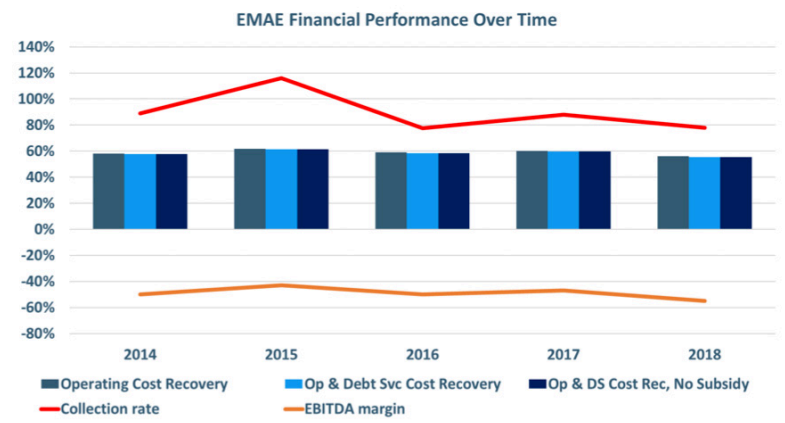
São Tomé and Príncipe: Empresa de Água e Electricidade (EMAE)

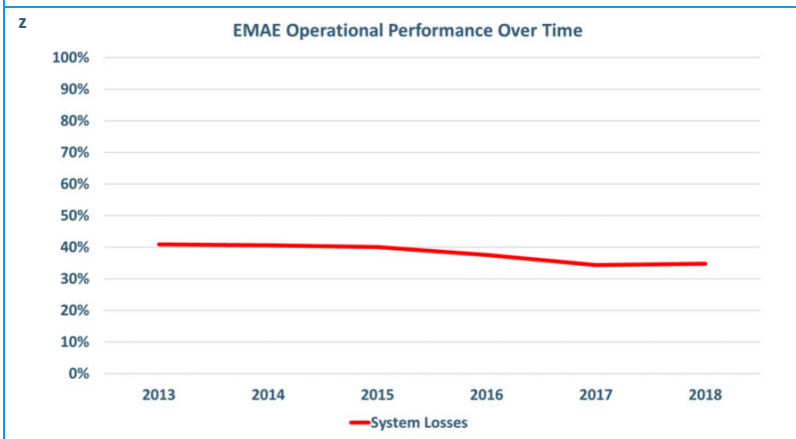
Scope of the utility's activities

EMAE is a vertically integrated electricity utility in São Tomé and Príncipe, established in 1975.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	36	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	36	MW	Average cost of supply (2017)	9.20/0.430	LCU/USD per kWh
Number of employees	427	No.	Average tariff (2017)	5.10/0.238	LCU/USD per kWh
Customers per km electricity network	53.6	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		EMAE	VIU Range	Unit
Cost recovery	Op. cost rec.	56.2%	56.2% -132.2%	%
	Op. & DS CR	55.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	55.4%	21.5% -125.0%	%
Liquidity	Collection rate	77.8%	41.7% -106.0%	%
	Accounts rec. %	92.2%	7.6% -583.5%	%
	Receivable days	337	28 -2130	Days
	Accounts pay. %	No data	10.2% -185.2%	%
	Payable days	No data	8 -676	Days
	DSCR (2016)	3.6	(75.5)-3.6	Ratio
Capital structure	Maturity matching	31.2	(83.6)-31.2	Ratio
	Implied cost of debt	0.4%	0.4% -45.0%	%
Profitability	Net profit margin	(87.0%)	(235.7%)-47.1%	%
	EBITDA margin	(54.8%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		EMAE	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	34.8%	10.5% -58.4%	%
	Time to connect	89	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *EMAE persistently has some of the lowest cost recovery indicators across the continent, resulting in high annual losses.*
- *Note that EMAE is also a water utility; the analysis above covers all EMAE's operations.*

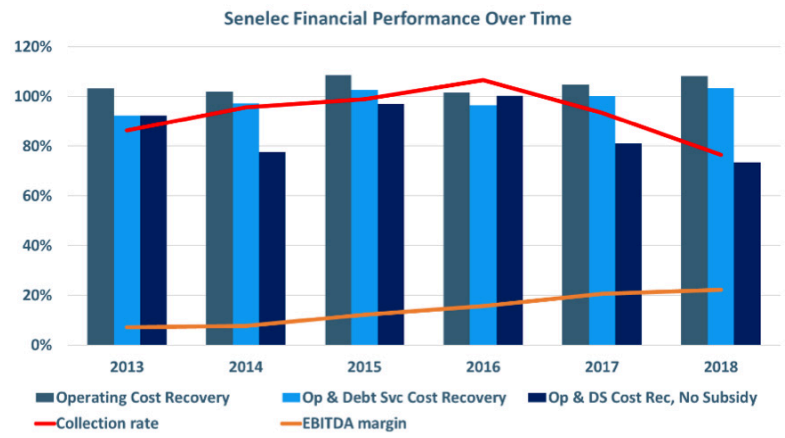
Senegal: Société Nationale d'Électricité du Sénégal (Senelec)

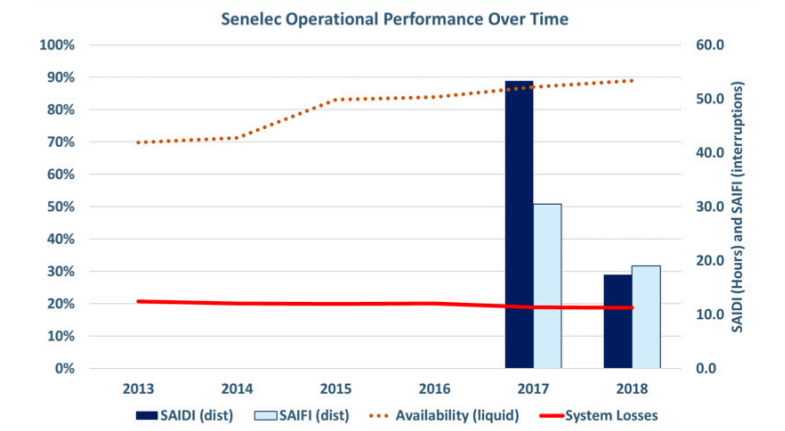
Scope of the utility's activities

Senelec is a vertically integrated electricity utility in Senegal, established in 1983.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	506	MW	Policy to support low-volume customers	No	Y/N
Peak dispatchable generation capacity	506	MW	Average cost of supply	148.87/0.268	LCU/USD per kWh
Number of employees	3,112	No.	Average tariff	109.34/0.268	LCU/USD per kWh
Customers per km electricity network	64.4	No./km	% customers with meters	100%	%
Cost of subsistence consumption	4.99%	%	% prepaid meters	36.53%	%
Affordability of connection fee (2015)	0.61	Mos.			

Utility performance





Financial performance

Indicator (2018)		Senelec	VIU Range	Unit
Cost recovery	Op. cost rec.	108.1%	56.2% -132.2%	%
	Op. & DS CR	103.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	73.4%	21.5% -125.0%	%
Liquidity	Collection rate	76.4%	41.7% -106.0%	%
	Accounts rec. %	130.0%	7.6% -583.5%	%
	Receivable days	474	28 -2130	Days
	Accounts pay. %	40.6%	10.2% -185.2%	%
	Payable days	148	37 -676	Days
	DSCR	(16.7)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.9	(83.6)-31.2	Ratio
	Implied cost of debt	2.8%	0.4% -45.0%	%
Profitability	Net profit margin	3.9%	(235.7%)-47.1%	%
	EBITDA margin	22.2%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		Senelec	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	88.9%	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	17.4	Not applicable	Hrs
	SAIFI, dist.	19.0	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	18.8%	10.5% -58.4%	%
	Time to connect	75	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *While Senelec's collection rate declined in 2017 and 2018 this was largely a result of an increase in revenues and continued lag between billing and collections. Receivable days remain high but are stable.*
- *Senelec has made a net profit every year since 2015.*

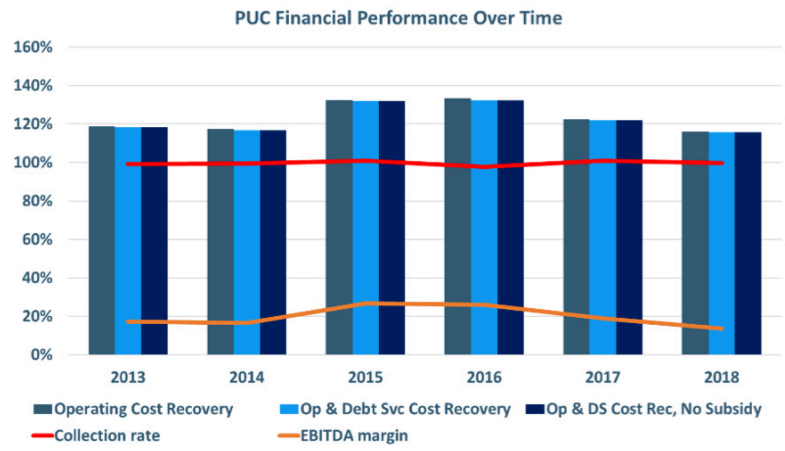
Seychelles: Public Utilities Corporation (PUC)

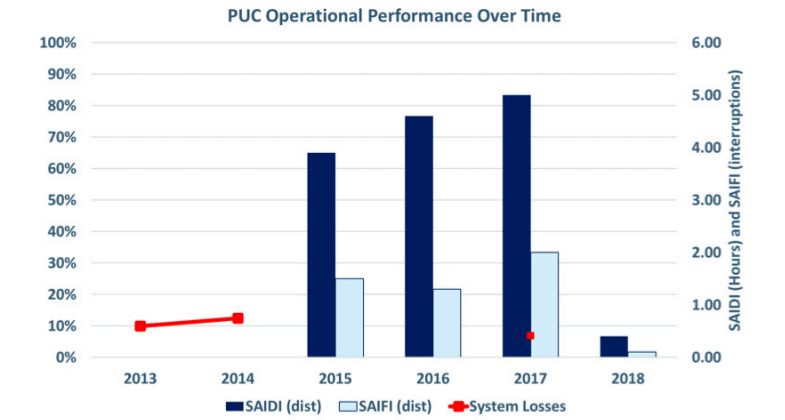
Scope of the utility's activities

PUC is a vertically integrated electricity utility in Seychelles, established in 1986.

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity	96	MW	Policy to support low-volume customers	No data	Y/N
Peak dispatchable generation capacity	88	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	353	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network (2014)	19.3	No./km	% customers with meters	No data	%
Cost of subsistence consumption	No data	%	% prepaid meters	No data	%
Affordability of connection fee	No data	Mos.			

Utility performance





Financial performance

Indicator (2018)		PUC	VIU Range	Unit
Cost recovery	Op. cost rec.	116.1%	56.2% -132.2%	%
	Op. & DS CR	115.7%	22.2% -125.0%	%
	Op. & DS CR, no sub.	115.7%	21.5% -125.0%	%
Liquidity	Collection rate	99.6%	41.7% -106.0%	%
	Accounts rec. %	10.1%	7.6% -583.5%	%
	Receivable days	37	28 -2130	Days
	Accounts pay. %	10.2%	10.2% -185.2%	%
	Payable days	37	37 -676	Days
	DSCR	(76.9)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.7	(83.6)-31.2	Ratio
	Implied cost of debt	0.8%	0.4% -45.0%	%
Profitability	Net profit margin	8.6%	(235.7%)-47.1%	%
	EBITDA margin	13.6%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		PUC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	0.40	Not applicable	Hrs
	SAIFI, dist.	0.10	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses (2017)	7.0%	6.3% -35.9%	%
	Time to connect	77	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	No

Important developments

- *PUC is profitable in every year analysed.*
- *Note that PUC also includes water and sewerage operations, but these are small in comparison to the electricity operations.*

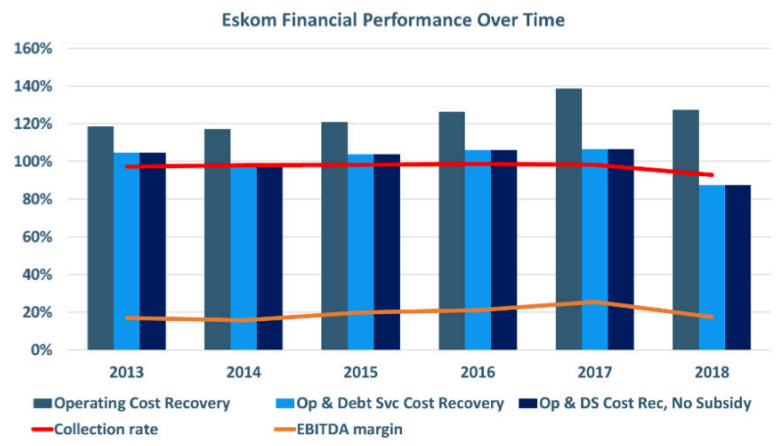
South Africa: Eskom

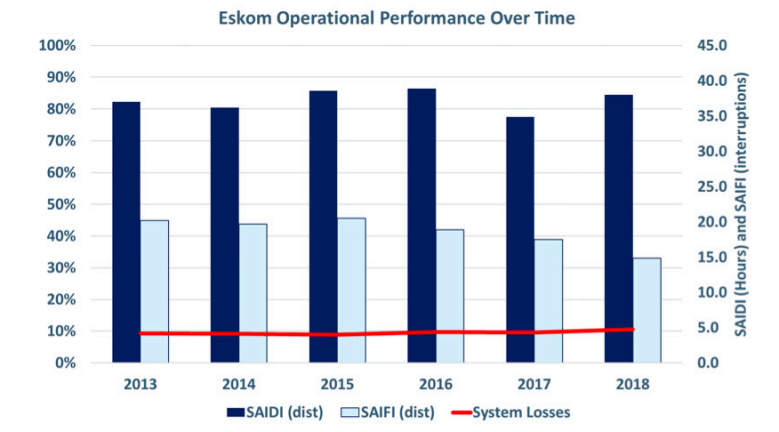
Scope of the utility's activities

Eskom is a vertically integrated electricity utility in South Africa, established in 1923.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	44,172	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	44,072	MW	Average cost of supply	1.03/0.075	LCU/USD per kWh
Number of employees	46,665	No.	Average tariff	0.86/0.063	LCU/USD per kWh
Customers per km electricity network	83.2	No./km	% customers with meters	No data	%
Cost of subsistence consumption	2.42%	%	% prepaid meters	No data	%
Affordability of connection fee	9.22	Mos.			

Utility performance





Financial performance

Indicator (2018)		Eskom	VIU Range	Unit
Cost recovery	Op. cost rec.	127.4%	56.2% -132.2%	%
	Op. & DS CR	87.4%	22.2% -125.0%	%
	Op. & DS CR, no sub.	87.4%	21.5% -125.0%	%
Liquidity	Collection rate	92.8%	41.7% -106.0%	%
	Accounts rec. %	29.6%	7.6% -583.5%	%
	Receivable days	108	28 -2130	Days
	Accounts pay. %	23.7%	10.2% -185.2%	%
	Payable days	87	37 -676	Days
	DSCR	(0.05)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.1	(83.6)-31.2	Ratio
	Implied cost of debt	6.9%	0.4% -45.0%	%
Profitability	Net profit margin	(11.5%)	(235.7%)-47.1%	%
	EBITDA margin	17.5%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		Eskom	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	38.0	Not applicable	Hrs
	SAIFI, dist.	14.9	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	System losses	10.5%	10.5% -58.4%	%
	Time to connect	109	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Escalating costs and debt levels are having a negative impact on cost recovery indicators.*
- *Net profit has also declined as a result and has been negative in all but one year since 2014.*
- *Eskom's collection rate has also dipped in recent years as the accounts receivable balance has built up.*

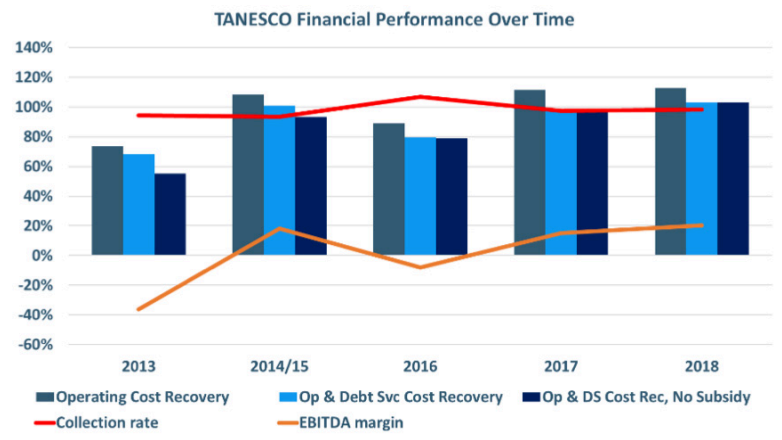
Tanzania: Tanzania Electricity Supply Company (TANESCO)

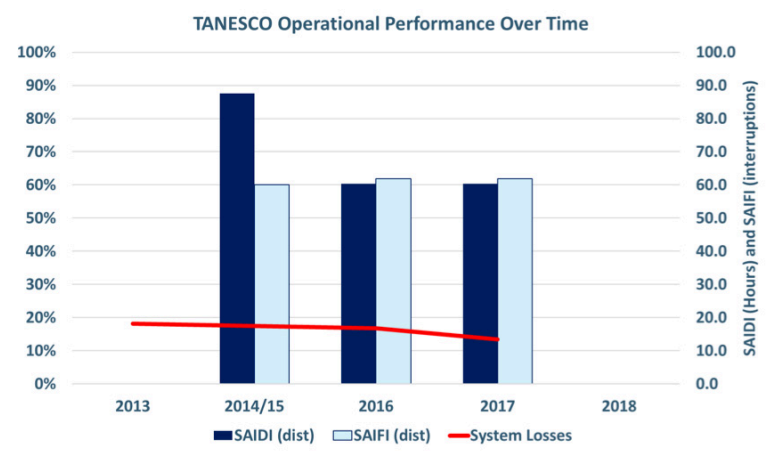
Scope of the utility's activities

TANESCO is a vertically integrated electricity utility in Tanzania, established in 1931.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2017)	1,452	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2017)	1,452	MW	Average cost of supply	219.82/0.098	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	226.46/0.101	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	2.09%	%	% prepaid meters	No data	%
Affordability of connection fee	0.59	Mos.			

Utility performance





Financial performance

Indicator (2018)		TANESCO	VIU Range	Unit
Cost recovery	Op. cost rec.	112.8%	56.2% -132.2%	%
	Op. & DS CR	102.9%	22.2% -125.0%	%
	Op. & DS CR, no sub.	102.9%	21.5% -125.0%	%
Liquidity	Collection rate	98.4%	41.7% -106.0%	%
	Accounts rec. %	28.7%	7.6% -583.5%	%
	Receivable days	105	28 -2130	Days
	Accounts pay. %	91.2%	10.2% -185.2%	%
	Payable days	333	37 -676	Days
	DSCR	(2.2)	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.3	(83.6)-31.2	Ratio
	Implied cost of debt	3.2%	0.4% -45.0%	%
Profitability	Net profit margin	(7.8%)	(235.7%)-47.1%	%
	EBITDA margin	20.3%	(54.8%)-128.3%	%

Operational performance

Indicator (2017)		TANESCO	VIU Range	Unit
Reliability	Availability (solid)	No data	31.2% -31.2%	%
	Availability (liquid)	No data	40.0% -98.1%	%
	Availability (gas)	No data	47.5% -91.5%	%
	Availability (hydro)	No data	44.0% -100.0%	%
	Availability (RE)	No data	18.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	0.0 -43.1	Hrs
	SAIFI, trans.	No data	0.2 -23.7	Ints
	SAIDI, dist.	60.4	1.0 -1275.0	Hrs
	SAIFI, dist.	61.9	0.5 -3131.0	Ints
	MIS (2018)	Yes	Not applicable	Y/N
	RPP (2018)	Yes	Not applicable	Y/N
Efficiency	System losses	13.4%	6.3% -35.9%	%
	Time to connect	109	34 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Cost recovery and operating profit indicators have improved in recent years.*
- *However, net profit has remained negative, largely as a result of high depreciation charges on an expanding distribution network.*
- *TANESCO revised its financial year from January to December to July to June in 2015; 2014/15 in the figures above therefore represents the 18-month period from January 2014 to June 2015.*

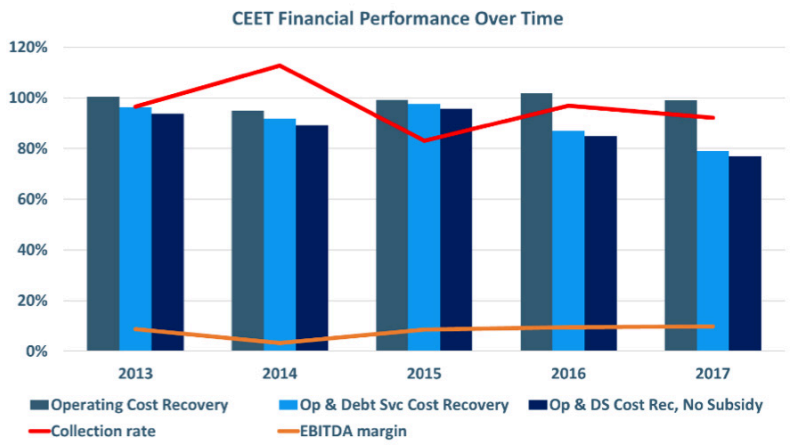
Togo: Electric Power Company of Togo (CEET)

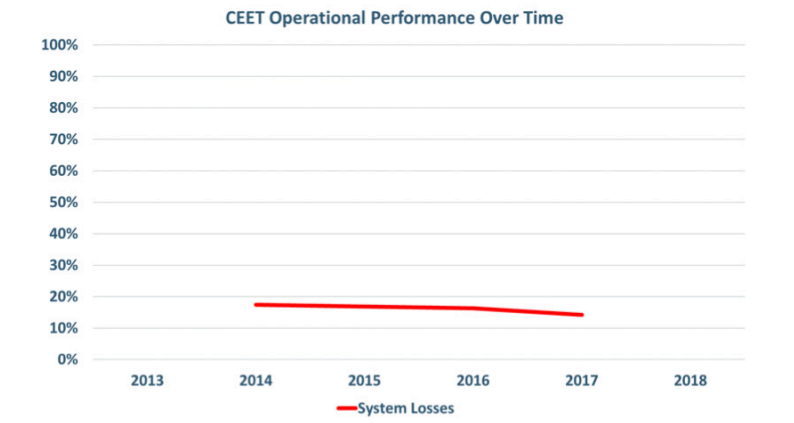
Scope of the utility's activities

CEET is a vertically integrated electricity utility in Togo, established in 1963.

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity (2014)	123	MW	Policy to support low-volume customers (2018)	Yes	Y/N
Peak dispatchable generation capacity (2014)	123	MW	Average cost of supply	150.47/0.259	LCU/USD per kWh
Number of employees	1,193	No.	Average tariff	115.79/0.199	LCU/USD per kWh
Customers per km electricity network	40.6	No./km	% customers with meters	No data	%
Cost of subsistence consumption (2018)	17.72%	%	% prepaid meters	No data	%
Affordability of connection fee (2018)	3.76	Mos.			

Utility performance





Financial performance

Indicator (2017)		CEET	VIU Range	Unit
Cost recovery	Op. cost rec.	99.1%	60.1% -154.8%	%
	Op. & DS CR	78.9%	59.8% -151.3%	%
	Op. & DS CR, no sub.	76.9%	51.6% -135.9%	%
Liquidity	Collection rate	92.1%	56.5% -115.7%	%
	Accounts rec. %	66.1%	7.4% -516.6%	%
	Receivable days	241	27 -1886	Days
	Accounts pay. %	43.2%	8.5% -309.1%	%
	Payable days	158	31 -1128	Days
	DSCR	(0.5)	(74.8)-5.0	Ratio
Capital structure	Maturity matching	0.6	(12.0)-8.2	Ratio
	Implied cost of debt	2.6%	0.2% -21.2%	%
Profitability	Net profit margin	0.4%	(67.4%)-28.9%	%
	EBITDA margin	9.9%	(47.1%)-64.8%	%

Operational performance

Indicator (2017)		CEET	VIU Range	Unit
Reliability	Availability (solid)	No data	31.2% -31.2%	%
	Availability (liquid)	No data	40.0% -98.1%	%
	Availability (gas)	No data	47.5% -91.5%	%
	Availability (hydro)	No data	44.0% -100.0%	%
	Availability (RE)	No data	18.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses	14.3%	6.3% -35.9%	%
	Time to connect (2018)	66	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Cost recovery indicators have fallen in recent years, in particular as debt levels at CEET have increased.*
- *Collection rates have also increased, with outstanding debtor now at a high level. No bad debt expense has been recognised, but it seems unlikely that the full debtors balance is recoverable.*

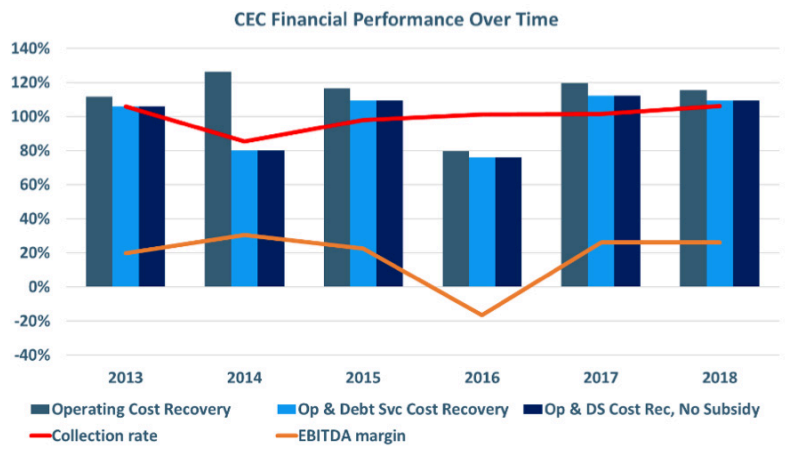
Zambia: Copperbelt Energy Corporation (CEC)

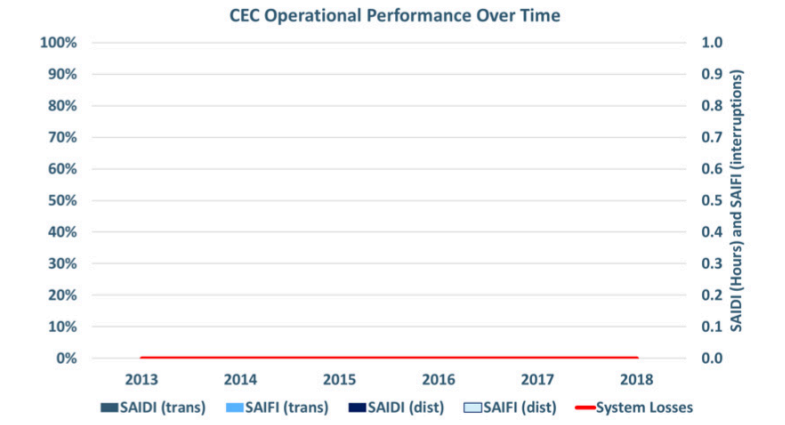
Scope of the utility's activities

CEC is a vertically integrated electricity utility in Zambia, established in 1997.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	81	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity	80	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	379	No.	Average tariff	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	% customers with meters	No data	%
Cost of subsistence consumption	4.28%	%	% prepaid meters	No data	%
Affordability of connection fee	3.39	Mos.			

Utility performance





Financial performance

Indicator (2018)		CEC	VIU Range	Unit
Cost recovery	Op. cost rec.	115.6%	56.2% -132.2%	%
	Op. & DS CR	109.3%	22.2% -125.0%	%
	Op. & DS CR, no sub.	109.3%	21.5% -125.0%	%
Liquidity	Collection rate	106.0%	41.7% -106.0%	%
	Accounts rec. %	10.9%	7.6% -583.5%	%
	Receivable days	40	28 -2130	Days
	Accounts pay. %	17.6%	10.2% -185.2%	%
	Payable days	64	37 -676	Days
	DSCR	3.1	(76.9)-17.4	Ratio
Capital structure	Maturity matching	0.8	(83.6)-31.2	Ratio
	Implied cost of debt	11.9%	0.4% -45.0%	%
Profitability	Net profit margin	13.3%	(235.7%)-47.1%	%
	EBITDA margin	26.2%	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		CEC	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	System losses	No data	10.5% -58.4%	%
	Time to connect	No data	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Overall, CEC's financial performance is strong, with good cost recovery and profitability.*
- *The apparent drop in cost recovery in 2014 is the result of a refinancing; with the impact of this removed cost recovery would remain at comparable levels to other years.*
- *The dip in cost recovery and profitability in 2016 is the result of a restructuring and impairment charge taken on CEC's investments in distribution assets in Nigeria.*

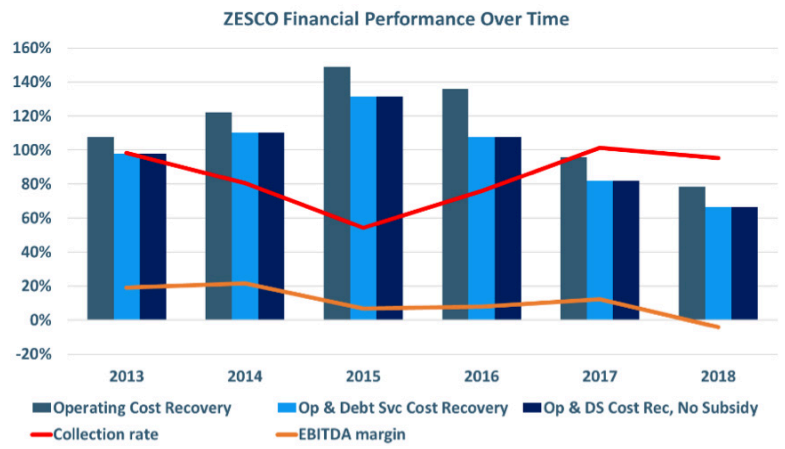
Zambia: Zambia Electricity Supply Corporation (ZESCO)

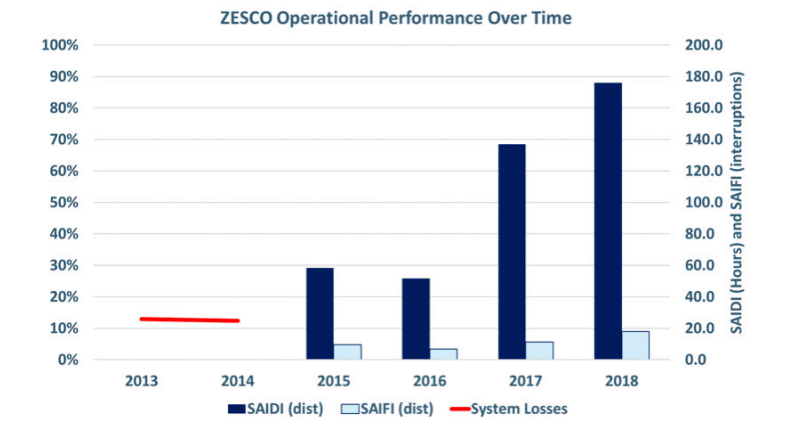
Scope of the utility's activities

ZESCO is a vertically integrated electricity utility in Zambia, established in 1970.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity (2015)	2,197	MW	Policy to support low-volume customers	Yes	Y/N
Peak dispatchable generation capacity (2015)	2,197	MW	Average cost of supply (2017)	0.70/0.073	LCU/USD per kWh
Number of employees	No data	No.	Average tariff (2017)	0.57/0.060	LCU/USD per kWh
Customers per km electricity network (2014)	20.7	No./km	% customers with meters	No data	%
Cost of subsistence consumption	4.28%	%	% prepaid meters	No data	%
Affordability of connection fee	3.39	Mos.			

Utility performance





Financial performance

Indicator (2018)		ZESCO	VIU Range	Unit
Cost recovery	Op. cost rec.	78.5%	56.2% -132.2%	%
	Op. & DS CR	66.5%	22.2% -125.0%	%
	Op. & DS CR, no sub.	66.5%	21.5% -125.0%	%
Liquidity	Collection rate	95.4%	41.7% -106.0%	%
	Accounts rec. %	67.0%	7.6% -583.5%	%
	Receivable days	245	28 -2130	Days
	Accounts pay. %	185.2%	10.2% -185.2%	%
	Payable days	676	37 -676	Days
	DSCR	0.0	(76.9)-17.4	Ratio
Capital structure	Maturity matching	1.2	(83.6)-31.2	Ratio
	Implied cost of debt	3.4%	0.4% -45.0%	%
Profitability	Net profit margin	16.4%	(235.7%)-47.1%	%
	EBITDA margin	(4.3%)	(54.8%)-128.3%	%

Operational performance

Indicator (2018)		ZESCO	VIU Range	Unit
Reliability	Availability (solid)	No data	29.8% -29.8%	%
	Availability (liquid)	No data	43.0% -94.2%	%
	Availability (gas)	No data	47.0% -91.5%	%
	Availability (hydro)	No data	59.0% -96.6%	%
	Availability (RE)	No data	20.8% -100.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	SAIDI, dist.	176.0	Not applicable	Hrs
	SAIFI, dist.	17.9	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	TBI 2020	Not applicable	Y/N
Efficiency	System losses (2014)	12.4%	6.9% -47.3%	%
	Time to connect	117	30 -450	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Tariffs below cost reflective levels have contributed to losses and increasing debt levels at ZESCO.*
- *The growing role of IPPs has resulted in an increase in operating costs and lower cost recovery indicators.*

A.2.2 Generation-only utilities

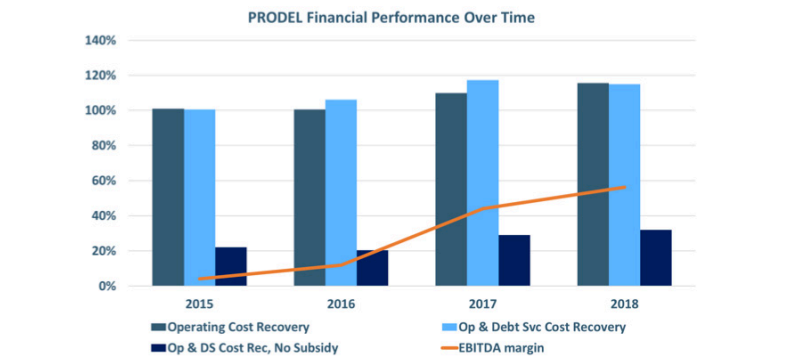
Angola: Empresa Pública de Produção de Electricidade (PRODEL)

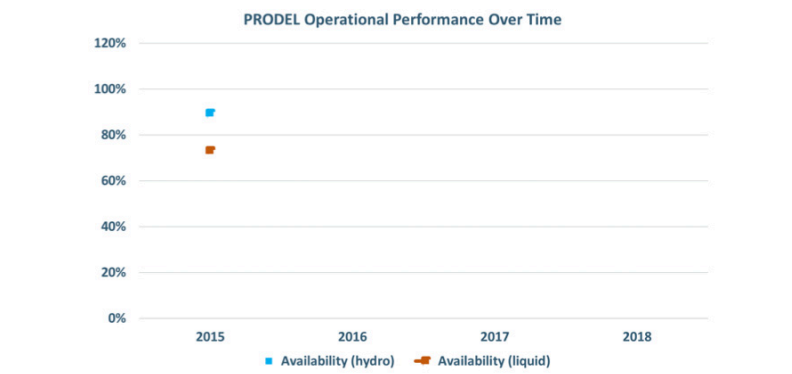
Scope of the utility's activities

PRODEL is an electricity generation utility in Angola, established in 2014 as part of sector restructuring, replacing the former utilities Empresa Nacional de Electricidade (ENE) and Empresa de Distribuçao de Electricidade (EDEL).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	4,597	MW	Average cost of supply	12.82/0.041	LCU/USD per kWh
Peak dispatchable generation capacity	4,281	MW	Average tariff	4.28/0.017	LCU/USD per kWh
Number of employees	2,756	No.			

Utility performance





Financial performance

Indicator (2018)		PRODEL	G Range	Unit
Cost recovery	Op. cost rec.	115.6%	26.8% -169.1%	%
	Op. & DS CR	115.0%	26.8% -116.8%	%
	Op. & DS CR, no sub.	32.1%	26.8% -116.8%	%
Liquidity	Accounts rec. %	191.7%	14.2% -191.7%	%
	Receivable days	700	52 -700	Days
	Accounts pay. %	373.5%	24.7% -373.5%	%
	Payable days	1,363	90 -1363	Days
	DSCR	(0.2)	(0.3)-0.2	Ratio
Capital structure	Maturity matching	1.3	0.9 -1.3	Ratio
	Implied cost of debt	77.4%	2.3% -77.4%	%
Profitability	Net profit margin	25.7%	(273.0%)-25.7%	%
	EBITDA margin	56.2%	(273.0%)-56.2%	%

Operational performance

Indicator (2018)		PRODEL	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	80.0%	68.7% -80.0%	%
	Availability (gas)	99.0%	71.0% -99.0%	%
	Availability (hydro)	99.0%	84.2% -99.0%	%
	Availability (RE)	100.0%	91.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	MIS	TBI 2021	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *Revenues received by PRODEL are well below the levels required for cost recovery, but substantial operating subsidies means that the utility operates with a modest profit.*
- *Substantial receivables and payables indicate cashflow challenges in the sector.*

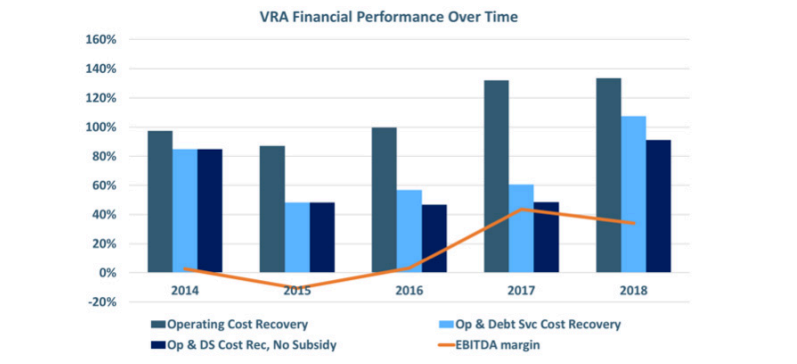
Ghana: Volta River Authority (VRA)

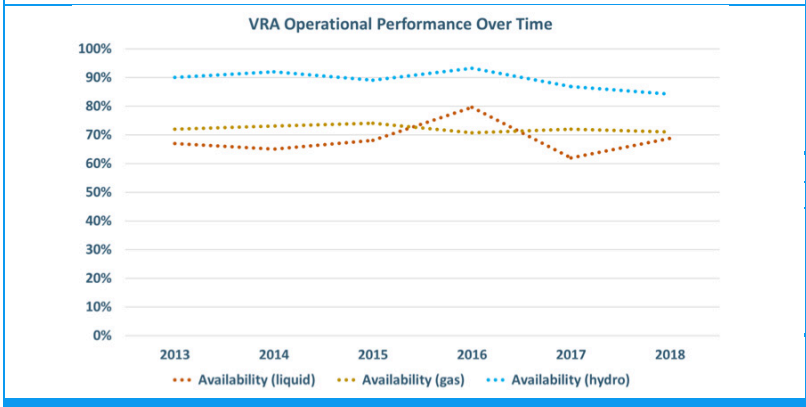
Scope of the utility's activities

VRA is an electricity generation utility in Ghana, established in 1961.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	3,520	MW	Average cost of supply	0.34/0.073	LCU/USD per kWh
Peak dispatchable generation capacity	3,183	MW	Average tariff	No data	LCU/USD per kWh
Number of employees	2,169	No.			

Utility performance





Financial performance

Indicator (2018)		VRA	G Range	Unit
Cost recovery	Op. cost rec.	133.7%	26.8% -169.1%	%
	Op. & DS CR	107.3%	26.8% -116.8%	%
	Op. & DS CR, no sub.	91.0%	26.8% -116.8%	%
Liquidity	Accounts rec. %	136.8%	14.2% -191.7%	%
	Receivable days	499	52 -700	Days
	Accounts pay. %	221.9%	24.7% -373.5%	%
	Payable days	810	90 -1363	Days
	DSCR	(0.3)	(0.3)-0.2	Ratio
Capital structure	Maturity matching	0.9	0.9 -1.3	Ratio
	Implied cost of debt	14.0%	2.3% -77.4%	%
Profitability	Net profit margin	(7.3%)	(273.0%)-25.7%	%
	EBITDA margin	34.1%	(273.0%)-56.2%	%

Operational performance

Indicator (2018)		VRA	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	68.7%	68.7% -80.0%	%
	Availability (gas)	71.0%	71.0% -99.0%	%
	Availability (hydro)	84.2%	84.2% -99.0%	%
	Availability (RE)	No data	91.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	MIS	Yes	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *VRA does not earn sufficient revenues to cover the cost of servicing a substantial increase in debt in recent years.*
- *Operating subsidies received in 2016 and 2017 means that the losses incurred by VRA are lower than they would otherwise be.*
- *Both receivables and payables are high as a result of cashflow issues that are pervasive throughout the sector.*

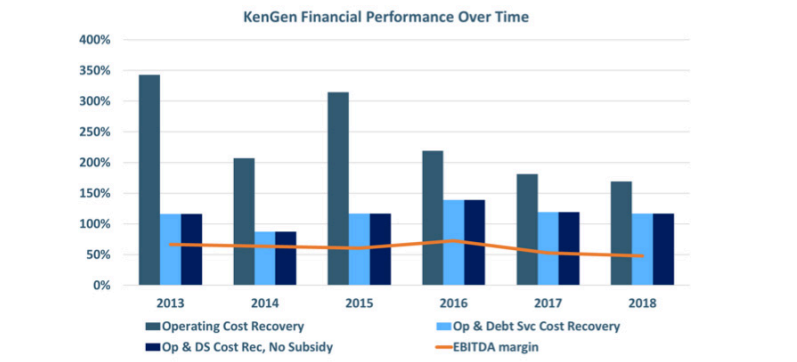
Kenya: Kenya Electricity Generation Company (KenGen)

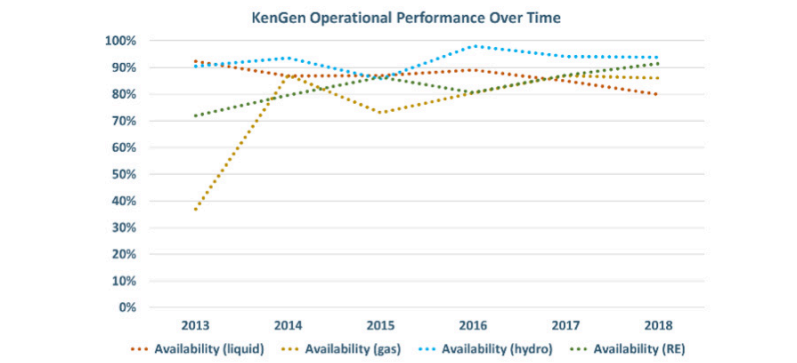
Scope of the utility's activities

KenGen is an electricity generation utility in Kenya, established in 1954.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	1,524	MW	Average cost of supply	4.85/0.047	LCU/USD per kWh
Peak dispatchable generation capacity	1,522	MW	Average tariff	5.67/0.055	LCU/USD per kWh
Number of employees	2,508	No.			

Utility performance





Financial performance

Indicator (2018)		KenGen	G Range	Unit
Cost recovery	Op. cost rec.	169.1%	26.8% -169.1%	%
	Op. & DS CR	116.8%	26.8% -116.8%	%
	Op. & DS CR, no sub.	116.8%	26.8% -116.8%	%
Liquidity	Accounts rec. %	48.3%	14.2% -191.7%	%
	Receivable days	176	52 -700	Days
	Accounts pay. %	107.5%	24.7% -373.5%	%
	Payable days	392	90 -1363	Days
	DSCR	0.2	(0.3)-0.2	Ratio
Capital structure	Maturity matching	1.0	0.9 -1.3	Ratio
	Implied cost of debt	2.3%	2.3% -77.4%	%
Profitability	Net profit margin	17.4%	(273.0%)-25.7%	%
	EBITDA margin	47.7%	(273.0%)-56.2%	%

Operational performance

Indicator (2018)		KenGen	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	79.9%	68.7% -80.0%	%
	Availability (gas)	86.0%	71.0% -99.0%	%
	Availability (hydro)	93.9%	84.2% -99.0%	%
	Availability (RE)	91.5%	91.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	MIS	Yes	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes

Important developments

- *Profitability is highly sensitive of generation mix: modest increase in use of thermal generators in 2017 and 2018 was a driver of reduced EBITDA.*
- *Cashflow negative despite strong cost recovery as a result of large cash outflows for capital expenditure.*
- *Apparent spikes in cost recovery in 2013 and 2015 are primarily the result of accelerated tax depreciation on the commissioning of new generation plant.*

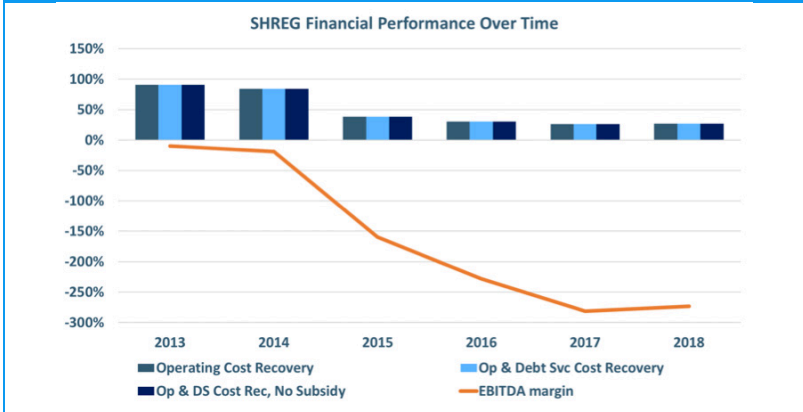
Sudan: Sudanese Hydro and Renewable Energy Generation Company (SHREG)

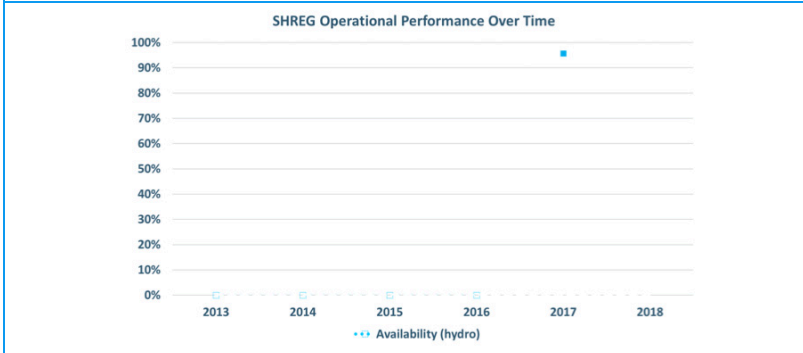
Scope of the utility's activities

SHREG is an electricity generation utility in Sudan, established in 2010 when it was unbundled from the former vertically integrated utility National Electricity Corporation (NEC).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	676.6	MW	Average cost of supply (2015)	0.12/0.020	LCU/USD per kWh
Peak dispatchable generation capacity	676.6	MW	Average tariff	No data	LCU/USD per kWh
Number of employees	No data	No.			

Utility performance





Financial performance

Indicator (2018)		SHREG	G Range	Unit
Cost recovery	Op. cost rec.	26.8%	26.8% -169.1%	%
	Op. & DS CR	26.8%	26.8% -116.8%	%
	Op. & DS CR, no sub.	26.8%	26.8% -116.8%	%
Liquidity	Accounts rec. %	14.2%	14.2% -191.7%	%
	Receivable days	52	52 -700	Days
	Accounts pay. %	24.7%	24.7% -373.5%	%
	Payable days	90	90 -1363	Days
	DSCR	No data	(0.3)-0.2	Ratio
Capital structure	Maturity matching	1.0	0.9 -1.3	Ratio
	Implied cost of debt	No data	2.3% -77.4%	%
Profitability	Net profit margin	(273.0%)	(273.0%)-25.7%	%
	EBITDA margin	(273.0%)	(273.0%)-56.2%	%

Operational performance

Indicator (2017)		SHREG	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	61.9% -85.0%	%
	Availability (gas)	No data	72.0% -87.0%	%
	Availability (hydro)	95.6%	84.0% -96.5%	%
	Availability (RE)	No data	87.2% -87.2%	%
	Availability (nuclear)	No data	No data	%
	MIS	No data	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *Revenues earned by SHREG are well below the levels required for full cost recovery, so the utility is accumulating substantial losses.*

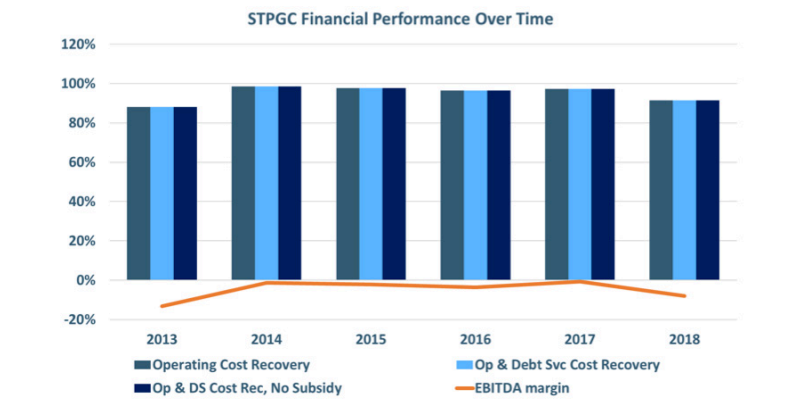
Sudan: Sudanese Thermal Power Generating Company (STPGC)

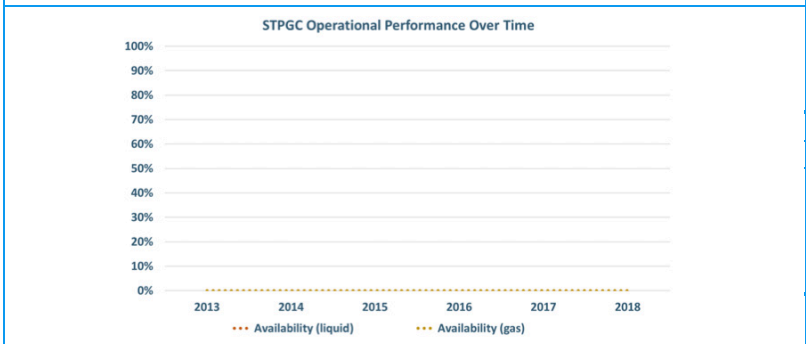
Scope of the utility's activities

STPGC is an electricity generation utility in Sudan, established in 2010 when it was unbundled from the former vertically integrated utility National Electricity Corporation (NEC).

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity	1,610.9	MW	Average cost of supply	No data	LCU/USD per kWh
Peak dispatchable generation capacity	1,465.1	MW	Average tariff	No data	LCU/USD per kWh
Number of employees	No data	No.			

Utility performance





Financial performance

Indicator (2018)		STPGC	G Range	Unit
Cost recovery	Op. cost rec.	91.5%	26.8% -169.1%	%
	Op. & DS CR	91.5%	26.8% -116.8%	%
	Op. & DS CR, no sub.	91.5%	26.8% -116.8%	%
Liquidity	Accounts rec. %	38.3%	14.2% -191.7%	%
	Receivable days	140	52 -700	Days
	Accounts pay. %	58.8%	24.7% -373.5%	%
	Payable days	215	90 -1363	Days
	DSCR	No data	(0.3)-0.2	Ratio
Capital structure	Maturity matching	1.1	0.9 -1.3	Ratio
	Implied cost of debt	No data	2.3% -77.4%	%
Profitability	Net profit margin	(7.9%)	(273.0%)-25.7%	%
	EBITDA margin	(7.9%)	(273.0%)-56.2%	%

Operational performance

Indicator (2018)		STPGC	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	68.7% -80.0%	%
	Availability (gas)	No data	71.0% -99.0%	%
	Availability (hydro)	No data	84.2% -99.0%	%
	Availability (RE)	No data	91.5% -100.0%	%
	Availability (nuclear)	No data	No data	%
	MIS	No data	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *STPGC's revenue come close to recovering costs, resulting in only a small loss.*
- *However, trade accounts receivable have increased a lot in recent years. It is unclear whether this balance is fully recoverable, although no bad debt expense has been recognised.*

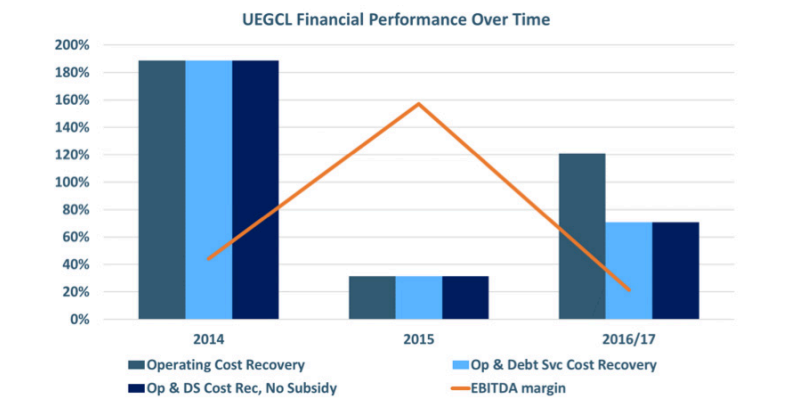
Uganda: Uganda Electricity Generation Company (UEGCL)

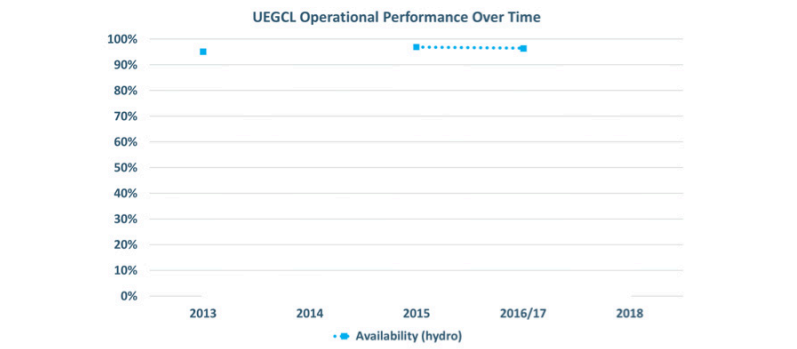
Scope of the utility's activities

UEGCL is an electricity generation utility in Uganda, established in 2001 when it was unbundled from the former vertically integrated utility Uganda Electricity Board (UEB).

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity	380.0	MW	Average cost of supply	13.87/0.004	LCU/USD per kWh
Peak dispatchable generation capacity	380.0	MW	Average tariff	9.80/0.003	LCU/USD per kWh
Number of employees	127	No.			

Utility performance





Financial performance

Indicator (2017)		UEGCL	G Range	Unit
Cost recovery	Op. cost rec.	121.1%	26.2% -184.3%	%
	Op. & DS CR	70.7%	26.2% -120.8%	%
	Op. & DS CR, no sub.	70.7%	26.2% -120.8%	%
Liquidity	Accounts rec. %	23.9%	23.9% -178.0%	%
	Receivable days	87	87 -650	Days
	Accounts pay. %	No data	8.1% -221.5%	%
	Payable days	No data	30 -808	Days
	DSCR	(265.2)	(265.2)-0.2	Ratio
Capital structure	Maturity matching	1.0	0.9 -1.3	Ratio
	Implied cost of debt	No data	2.5% -29.9%	%
Profitability	Net profit margin	(94.2%)	(281.0%)-20.7%	%
	EBITDA margin	21.3%	(281.0%)-52.5%	%

Operational performance

Indicator (2017)		UEGCL	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	61.9% -85.0%	%
	Availability (gas)	No data	72.0% -87.0%	%
	Availability (hydro)	96.5%	84.0% -96.5%	%
	Availability (RE)	No data	87.2% -87.2%	%
	Availability (nuclear)	No data	No data	%
	MIS	No data	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *Financial data appears volatile because UEGCL's assets are operated by Eskom Uganda, so the financial statements simply show the impact of the concession arrangement.*
- *UEGCL's role will grow in future years, with the commissioning of the Isimba and Karuma hydropower projects.*
- *UEGCL revised its financial year from January to December to July to June in 2017; 2016/17 in the figures above therefore represents the 18-month period from January 2016 to June 2017.*

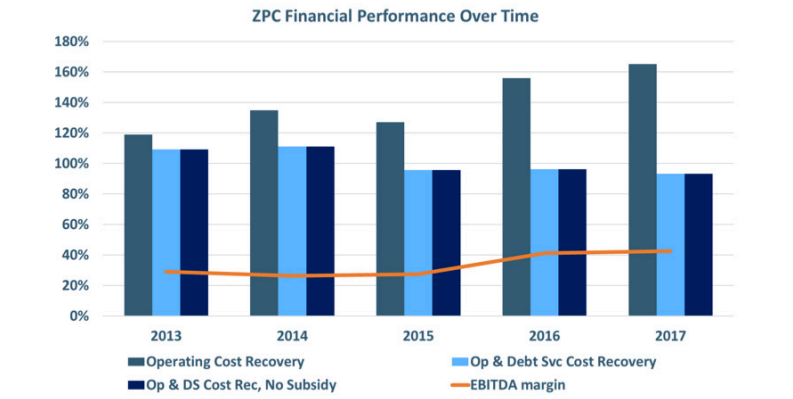
Zimbabwe: Zimbabwe Power Company (ZPC)

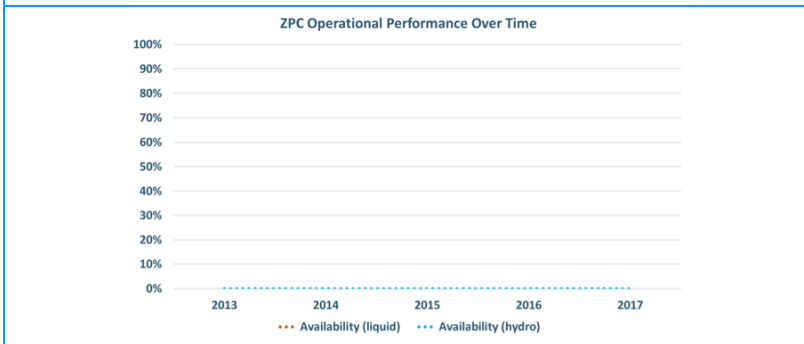
Scope of the utility's activities

ZPC is an electricity generation utility in Zimbabwe, established in 1996 when it was unbundled from the former vertically integrated utility Zimbabwe Electricity Supply Authority (ZESA).

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Generation capacity	1,850	MW	Average cost of supply	No data	LCU/USD per kWh
Peak dispatchable generation capacity	1,850	MW	Average tariff	0.11/0.114	LCU/USD per kWh
Number of employees	2,647	No.			

Utility performance





Financial performance

Indicator (2017)		ZPC	G Range	Unit
Cost recovery	Op. cost rec.	165.1%	26.2% -184.3%	%
	Op. & DS CR	93.1%	26.2% -120.8%	%
	Op. & DS CR, no sub.	93.1%	26.2% -120.8%	%
Liquidity	Accounts rec. %	178.0%	23.9% -178.0%	%
	Receivable days	650	87 -650	Days
	Accounts pay. %	10.5%	8.1% -221.5%	%
	Payable days	38	30 -808	Days
	DSCR	(0.3)	(265.2)-0.2	Ratio
Capital structure	Maturity matching	0.9	0.9 -1.3	Ratio
	Implied cost of debt	6.7%	2.5% -29.9%	%
Profitability	Net profit margin	(3.2%)	(281.0%)-20.7%	%
	EBITDA margin	42.5%	(281.0%)-52.5%	%

Operational performance

Indicator (2018)		ZPC	G Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	61.9% -85.0%	%
	Availability (gas)	No data	72.0% -87.0%	%
	Availability (hydro)	No data	84.0% -96.5%	%
	Availability (RE)	No data	87.2% -87.2%	%
	Availability (nuclear)	No data	No data	%
	MIS	Yes	Not applicable	Y/N

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *While ZPC's revenues cover its operating costs, investments have resulted in a gradual accumulation of debt and current revenues are insufficient to cover debt service requirements.*

A.2.3 Transmission-only utilities

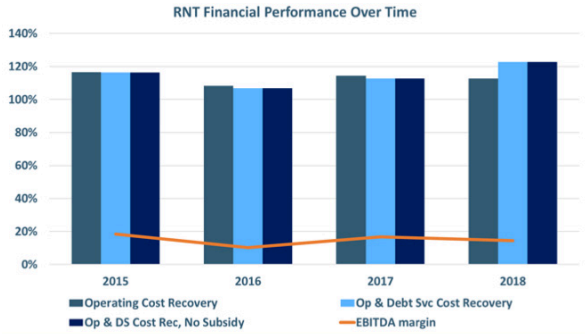
Angola: Empresa Rede Nacional de Transporte de Electricidade (RNT)

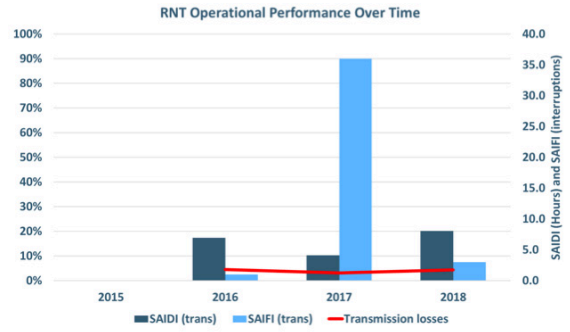
Scope of the utility's activities

RNT is an electricity transmission utility in Angola, established in 2014 as part of sector restructuring, replacing the former utilities Empresa Nacional de Electricidade (ENE) and Empresa de Distribução de Electricidade (EDEL).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	1,005	No.	Average tariff	8.04/0.032	LCU/USD per kWh
Average cost of supply	6.51/0.026	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2018)		RNT	T Range	Unit
Cost recovery	Op. cost rec.	112.8%	52.0% -117.3%	%
	Op. & DS CR	122.9%	52.0% -122.9%	%
	Op. & DS CR, no sub.	122.9%	31.7% -122.9%	%
Liquidity	Accounts rec. %	212.7%	23.2% -212.7%	%
	Receivable days	776	85 -776	Days
	Accounts pay. %	194.3%	30.0% -763.8%	%
	Payable days	709	109 -2788	Days
	DSCR	(0.2)	(939.4) - (0.2)	Ratio
Capital structure	Maturity matching	1.1	0.9 -1.2	Ratio
	Implied cost of debt	18.4%	0.1% -18.4%	%
Profitability	Net profit margin	1.7%	(151.2%)-21.7%	%
	EBITDA margin	14.6%	(151.2%)-32.7%	%

Operational performance

Indicator (2018)		RNT	T Range	Unit
Reliability	SAIDI, trans.	8.1	Not applicable	Hrs
	SAIFI, trans.	3.0	Not applicable	Ints
	MIS	TBI 2021	Not applicable	Y/N
Efficiency	Trans. losses	4.4%	3.8% -4.4%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *RNT has good cost recovery and profitability indicators, but Receivable days and Payable days have increased substantially in recent years, indicating that there is a cash recovery issue originating further down the value chain.*
- *No bad debt expense has been recognised although it is unclear whether these amounts are fully recoverable.*

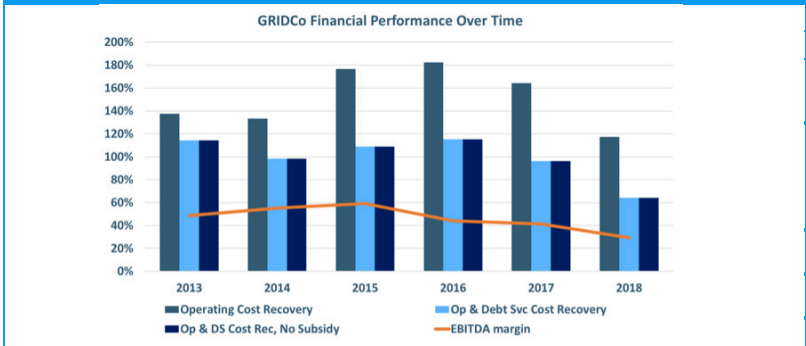
Ghana: Ghana Grid Company (GRIDCo)

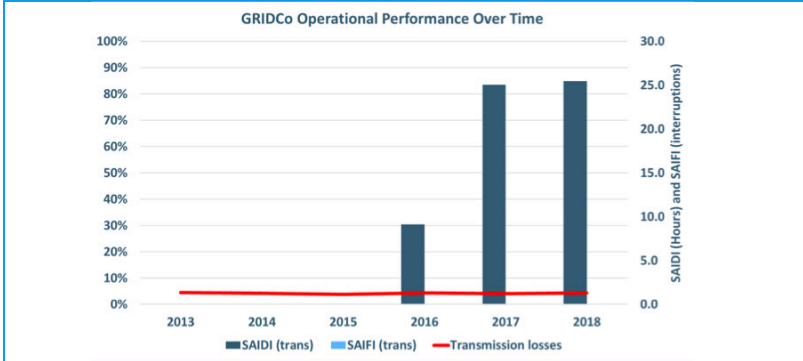
Scope of the utility's activities

GRIDCo is an electricity transmission utility in Ghana, established in 2006 and starting operations in 2008.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average tariff	0.03/0.007	LCU/USD per kWh
Average cost of supply	0.04/0.010	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2018)		GRIDCo	T Range	Unit
Cost recovery	Op. cost rec.	117.3%	52.0% -117.3%	%
	Op. & DS CR	64.1%	52.0% -122.9%	%
	Op. & DS CR, no sub.	64.1%	31.7% -122.9%	%
Liquidity	Accounts rec. %	212.0%	23.2% -212.7%	%
	Receivable days	774	85 -776	Days
	Accounts pay. %	113.8%	30.0% -763.8%	%
	Payable days	416	109 -2788	Days
	DSCR	(0.3)	(939.4) - (0.2)	Ratio
Capital structure	Maturity matching	1.2	0.9 -1.2	Ratio
	Implied cost of debt	1.1%	0.1% -18.4%	%
Profitability	Net profit margin	(23.3%)	(151.2%)-21.7%	%
	EBITDA margin	29.2%	(151.2%)-32.7%	%

Operational performance

Indicator (2018)		GRIDCo	T Range	Unit
Reliability	SAIDI, trans.	25.5	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
Efficiency	Trans. losses	4.4%	3.8% -4.4%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *Gearing has increased in recent years to pay for new network infrastructure, which has reduced overall cost recovery even as operating cost recovery has increased.*
- *Accounts receivable and accounts payable have increased as cashflows in the sector have been adversely affected by below-cost tariffs and poor collections.*

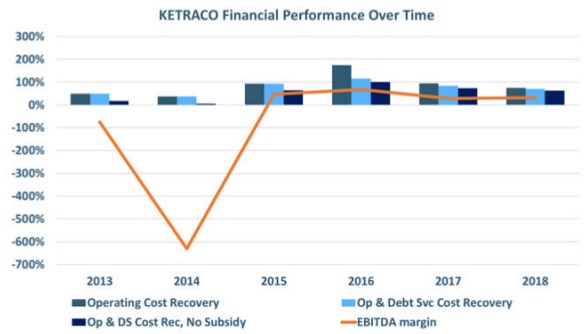
Kenya: Kenya Electricity Transmission Company (KETRACO)

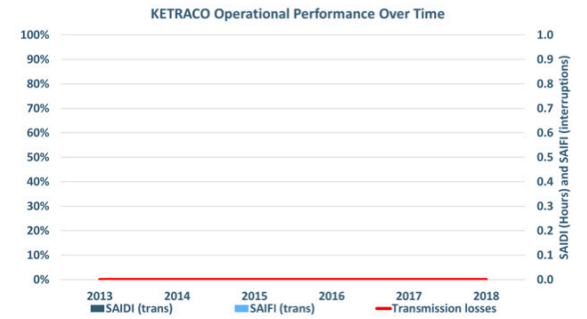
Scope of the utility's activities

KETRACO is an electricity transmission utility in Kenya, established in 2008 when it was unbundled from the transmission and distribution utility Kenya Power and Lighting Company (KPLC).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	537	No.	Average tariff	No data	LCU/USD per kWh
Average cost of supply	No data	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2018)		KETRACO	T Range	Unit
Cost recovery	Op. cost rec.	75.8%	52.0% -117.3%	%
	Op. & DS CR	70.3%	52.0% -122.9%	%
	Op. & DS CR, no sub.	63.2%	31.7% -122.9%	%
Liquidity	Accounts rec. %	107.4%	23.2% -212.7%	%
	Receivable days	392	85 -776	Days
	Accounts pay. %	763.8%	30.0% -763.8%	%
	Payable days	2,788	109 -2788	Days
	DSCR	(129.5)	(939.4) - (0.2)	Ratio
Capital structure	Maturity matching	1.0	0.9 -1.2	Ratio
	Implied cost of debt	1.0%	0.1% -18.4%	%
Profitability	Net profit margin	21.7%	(151.2%)-21.7%	%
	EBITDA margin	32.7%	(151.2%)-32.7%	%

Operational performance

Indicator (2018)		KETRACO	T Range	Unit
Reliability	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
Efficiency	Trans. losses	No data	95.9% -96.1%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *Cost recovery has increased in recent years although after the effect of subsidies is removed, KETRACO still does not fully recover costs.*
- *Low profitability in 2014 is a result of a low wheeling revenue in that year. Wheeling revenues are a fixed amount approved by the regulator each year; the volatility of these amounts suggests that they are not truly cost reflective.*
- *Both Receivable days and Payable days are high, suggesting cashflow issues through the value chain.*

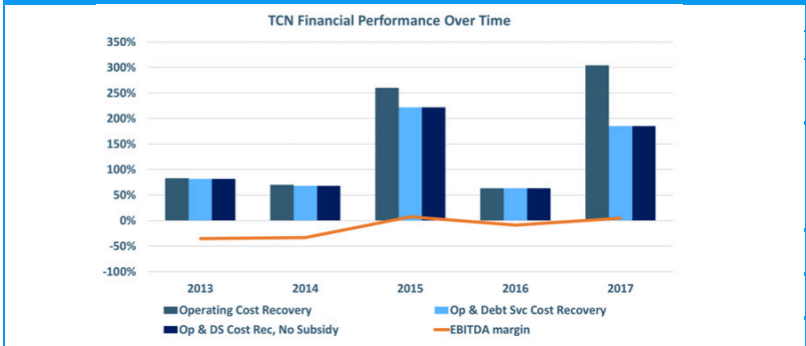
Nigeria: Transmission Company of Nigeria (TCN)

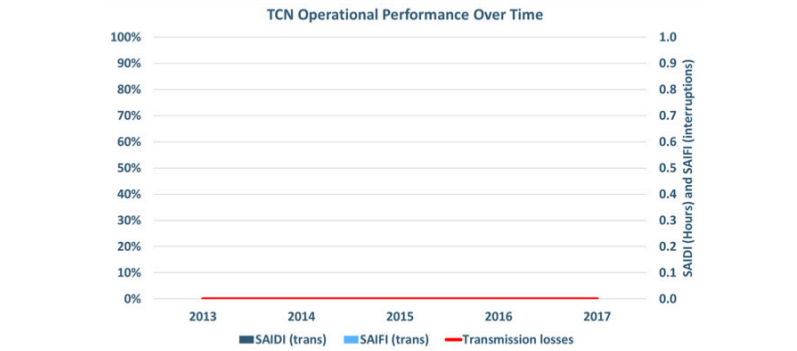
Scope of the utility's activities

TCN is an electricity transmission utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Average cost of supply	No data	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2017)		TCN	T Range	Unit
Cost recovery	Op. cost rec.	304.5%	64.6% -304.5%	%
	Op. & DS CR	185.0%	64.6% -185.0%	%
	Op. & DS CR, no sub.	185.0%	30.3% -185.0%	%
Liquidity	Accounts rec. %	196.0%	21.9% -196.0%	%
	Receivable days	716	80 -716	Days
	Accounts pay. %	257.3%	24.0% -647.1%	%
	Payable days	939	87 -2362	Days
	DSCR	(1.7)	(451.6)-1.1	Ratio
Capital structure	Maturity matching	0.8	0.8 -1.1	Ratio
	Implied cost of debt	20.2%	0.0% -22.8%	%
Profitability	Net profit margin	123.0%	(116.6%)-123.0%	%
	EBITDA margin	5.1%	(116.6%)-41.4%	%

Operational performance

Indicator (2018)		TCN	T Range	Unit
Reliability	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
Efficiency	Trans. losses	No data	3.8% -4.4%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *TCN's revenues increased over the period 2013-2015, improving cost recovery indicators.*
- *No operational data were available for TCN.*

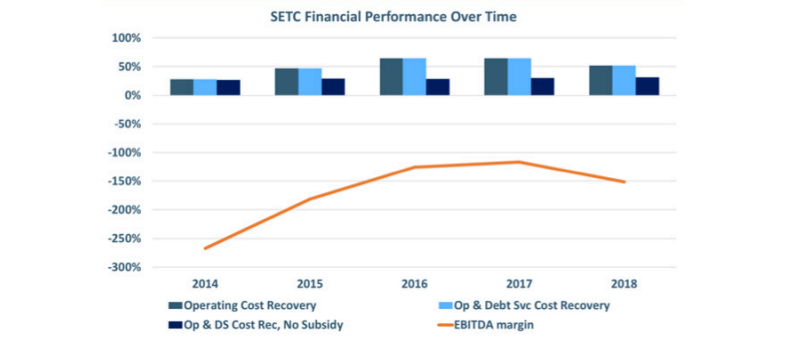
Sudan: Sudanese Electricity Transmission Company (SETC)

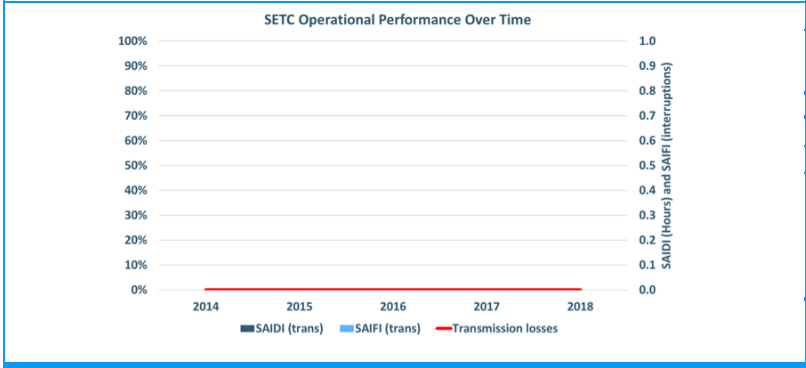
Scope of the utility's activities

SETC is an electricity transmission utility in Sudan, established in 2010 when it was unbundled from the former vertically integrated utility National Electricity Corporation (NEC).

Utility information (2017)	Data	Unit	Utility information (2017)	Data	Unit
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh
Average cost of supply	0.04/0.006	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2018)		SETC	T Range	Unit
Cost recovery	Op. cost rec.	52.0%	52.0% -117.3%	%
	Op. & DS CR	52.0%	52.0% -122.9%	%
	Op. & DS CR, no sub.	31.7%	31.7% -122.9%	%
Liquidity	Accounts rec. %	23.2%	23.2% -212.7%	%
	Receivable days	85	85 -776	Days
	Accounts pay. %	30.0%	30.0% -763.8%	%
	Payable days	109	109 -2788	Days
	DSCR	No data	(939.4) - (0.2)	Ratio
Capital structure	Maturity matching	1.0	0.9 -1.2	Ratio
	Implied cost of debt	No data	0.1% -18.4%	%
Profitability	Net profit margin	(151.2%)	(151.2%)-21.7%	%
	EBITDA margin	(151.2%)	(151.2%)-32.7%	%

Operational performance

Indicator (2018)		SETC	T Range	Unit
Reliability	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
Efficiency	Trans. losses	No data	3.8% -4.4%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *SETC has very low cost recovery and makes a substantial and persistent loss.*
- *No operational data were available for SETC.*

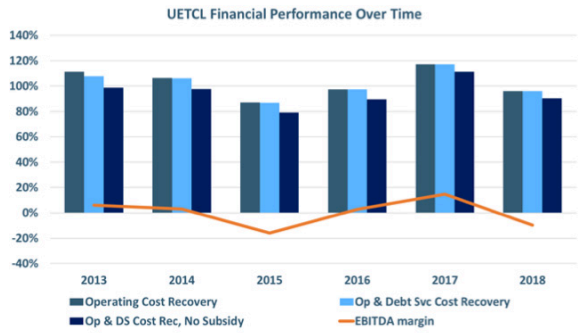
Uganda: Uganda Electricity Transmission Company (UETCL)

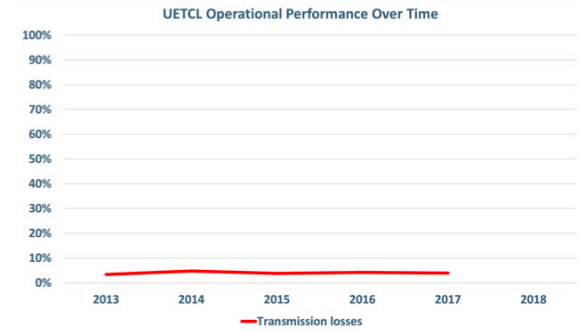
Scope of the utility's activities

UETCL is an electricity transmission utility in Uganda, established in 2001 when it was unbundled from the former vertically integrated utility Uganda Electricity Board (UEB).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	476	No.	Average tariff	No data	LCU/USD per kWh
Average cost of supply	317.23/0.085	LCU/USD per kWh			

Utility performance





Financial performance

Indicator (2018)		UETCL	T Range	Unit
Cost recovery	Op. cost rec.	96.0%	52.0% -117.3%	%
	Op. & DS CR	96.0%	52.0% -122.9%	%
	Op. & DS CR, no sub.	90.4%	31.7% -122.9%	%
Liquidity	Accounts rec. %	34.7%	23.2% -212.7%	%
	Receivable days	126	85 -776	Days
	Accounts pay. %	30.2%	30.0% -763.8%	%
	Payable days	110	109 -2788	Days
	DSCR	(939.4)	(939.4) - (0.2)	Ratio
Capital structure	Maturity matching	0.9	0.9 -1.2	Ratio
	Implied cost of debt	0.1%	0.1% -18.4%	%
Profitability	Net profit margin	(6.9%)	(151.2%)-21.7%	%
	EBITDA margin	(9.8%)	(151.2%)-32.7%	%

Operational performance

Indicator (2018)		UETCL	T Range	Unit
Reliability	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
Efficiency	Trans. losses	3.8%	3.8% -4.4%	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *UETCL's cost recovery improved gradually through 2017, returning the utility to profitability before a decline in performance in 2018.*
- *UETCL has among the lowest receivables and payables balances of any transmission-only utility.*

A.2.4 Distribution-only utilities

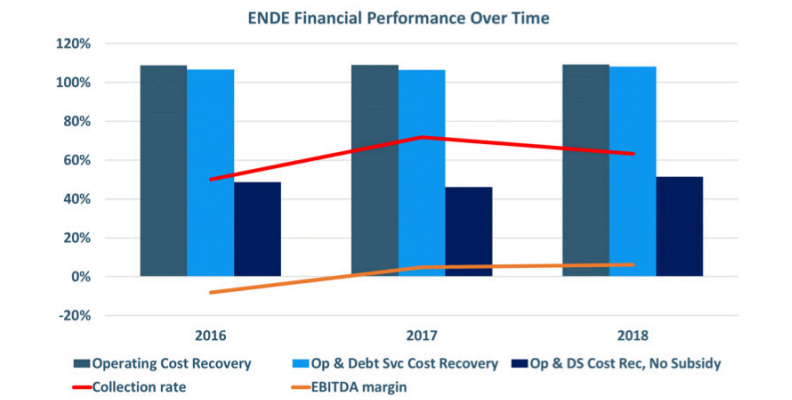
Angola: Empresa Nacional de Distribuçao de Electricidade (ENDE)

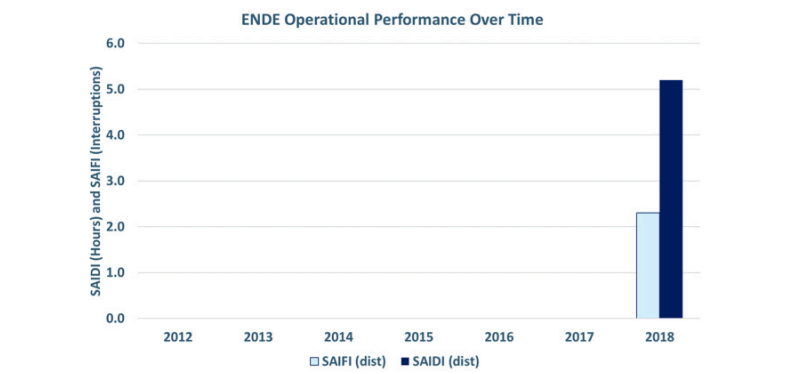
Scope of the utility's activities

ENDE is an electricity distribution utility in Angola, established in 2014 as part of sector restructuring, replacing the former utilities Empresa Nacional de Electricidade (ENE) and Empresa de Distribuçao de Electricidade (EDEL).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees (2017)	4,627	No.	Average cost of supply	14.02/0.055	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	6.82/0.027	LCU/USD per kWh
Cost of subsistence consumption	0.11%	%	% customers with meters	No data	%
Affordability of connection fee	0.37	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		ENDE	D Range	Unit
Cost recovery	Op. cost rec.	109.2%	67.6% -136.5%	%
	Op. & DS CR	108.1%	63.8% -126.5%	%
	Op. & DS CR, no sub.	51.5%	51.5% -107.8%	%
Liquidity	Collection rate	63.4%	38.3% -137.0%	%
	Accounts rec. %	164.8%	2.3% -227.1%	%
	Receivable days	601	8 -829	Days
	Accounts pay. %	194.3%	1.7% -300.8%	%
	Payable days	709	6 -1098	Days
	DSCR	(14.2)	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.1	(1.6)-7.4	Ratio
	Implied cost of debt	32.5%	6.2% -32.5%	%
Profitability	Net profit margin	1.9%	(110.4%)-9.7%	%
	EBITDA margin	6.1%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		ENDE	D Range	Unit
Reliability	SAIDI, dist.	5.2	Not applicable	Hrs
	SAIFI, dist.	2.3	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	TBI 2021	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect (2017)	145	66 -145	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *While ENDE's revenues cover its operating costs, but only with the aid of substantial operational subsidies.*
- *ENDE's collection rate is only ~60% and is accumulating a large accounts receivable balance.*

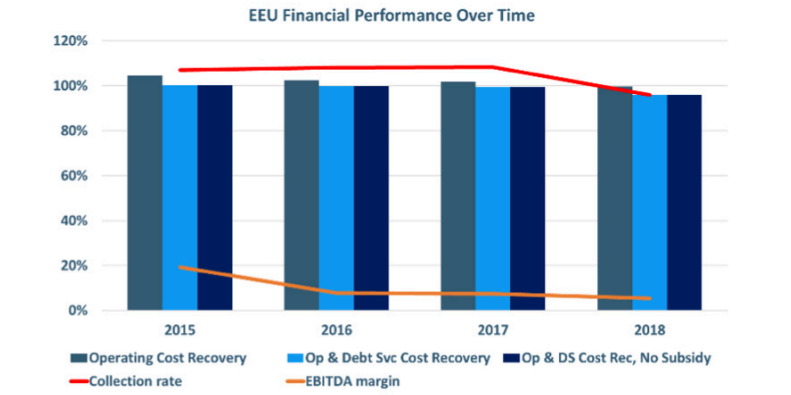
Ethiopia: Ethiopian Electricity Utility (EEU)

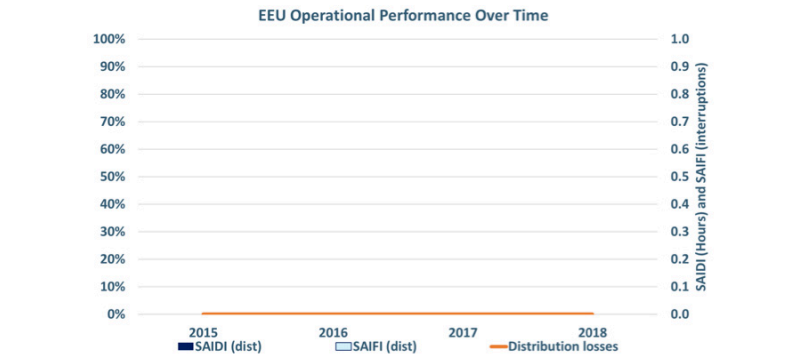
Scope of the utility's activities

EEU is an electricity distribution utility in Ethiopia, established in 2014, when it was unbundled from the former vertically integrated electricity utility Ethiopian Electric Power Corporation (EEPCo).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	0.99/0.038	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	0.95/0.036	LCU/USD per kWh
Cost of subsistence consumption	1.20%	%	% customers with meters	100%	%
Affordability of connection fee	1.12	Mos.	% prepaid meters	3.34%	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		EEU	D Range	Unit
Cost recovery	Op. cost rec.	99.6%	67.6% -136.5%	%
	Op. & DS CR	96.0%	63.8% -126.5%	%
	Op. & DS CR, no sub.	96.0%	51.5% -107.8%	%
Liquidity	Collection rate	96.0%	38.3% -137.0%	%
	Accounts rec. %	2.3%	2.3% -227.1%	%
	Receivable days	8	8 -829	Days
	Accounts pay. %	1.7%	1.7% -300.8%	%
	Payable days	6	6 -1098	Days
	DSCR	6.3	(14.2)-11.1	Ratio
Capital structure	Maturity matching	0.8	(1.6)-7.4	Ratio
	Implied cost of debt	8.5%	6.2% -32.5%	%
Profitability	Net profit margin	(16.0%)	(110.4%)-9.7%	%
	EBITDA margin	5.5%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		EEU	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect (2017)	98	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Cost recovery metrics benefit from an apparent implied cost of debt that is below the interest rates disclosed in EEU's financial statements. It is understood that EEU is not fully servicing outstanding debt.*

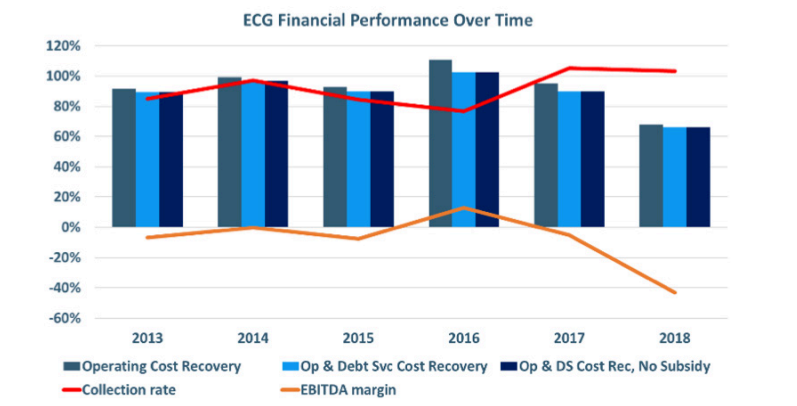
Ghana: Electricity Company of Ghana (Ghana)

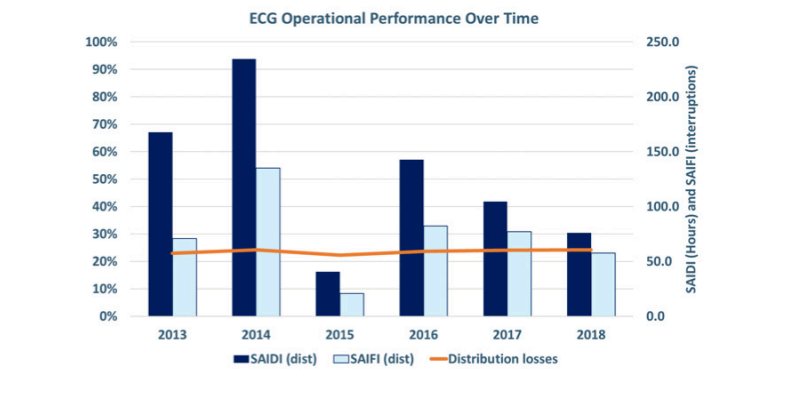
Scope of the utility's activities

ECG is an electricity distribution utility in Ghana, established in 1967.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	6,491	No.	Average cost of supply	1.08/0.232	LCU/USD per kWh
Customers per km electricity network (2014)	29.8	No./km	Average tariff	0.71/0.153	LCU/USD per kWh
Cost of subsistence consumption	6.87%	%	% customers with meters	100.0%	%
Affordability of connection fee	7.89	Mos.	% prepaid meters	44.0%	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		ECG	D Range	Unit
Cost recovery	Op. cost rec.	68.0%	67.6% -136.5%	%
	Op. & DS CR	65.9%	63.8% -126.5%	%
	Op. & DS CR, no sub.	65.9%	51.5% -107.8%	%
Liquidity	Collection rate	103.2%	38.3% -137.0%	%
	Accounts rec. %	35.4%	2.3% -227.1%	%
	Receivable days	129	8 -829	Days
	Accounts pay. %	79.9%	1.7% -300.8%	%
	Payable days	292	6 -1098	Days
	DSCR	(3.5)	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.4	(1.6)-7.4	Ratio
	Implied cost of debt	13.7%	6.2% -32.5%	%
Profitability	Net profit margin	(38.5%)	(110.4%)-9.7%	%
	EBITDA margin	(43.1%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		ECG	D Range	Unit
Reliability	SAIDI, dist.	76.0	Not applicable	Hrs
	SAIFI, dist.	57.5	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. Losses (2017)	24.3%	11.0% -36.0%	%
	Time to connect (2017)	79	66 -145	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Low collection rates through 2016, largely a result of unpaid bills by government entities, has resulted in a build-up of accounts receivable and accounts payable, hindering cashflow through the sector.*
- *While cost recovery was good in 2016, it has declined since then, likely as a result of the commissioning of several expensive IPPs. Without significant subsidy support and/or tariff increases, low cost recovery is expected to persist.*

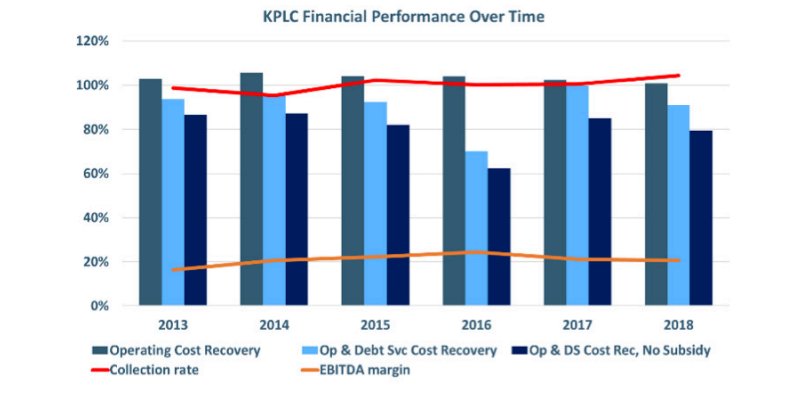
Kenya: Kenya Power and Lighting Company (KPLC)

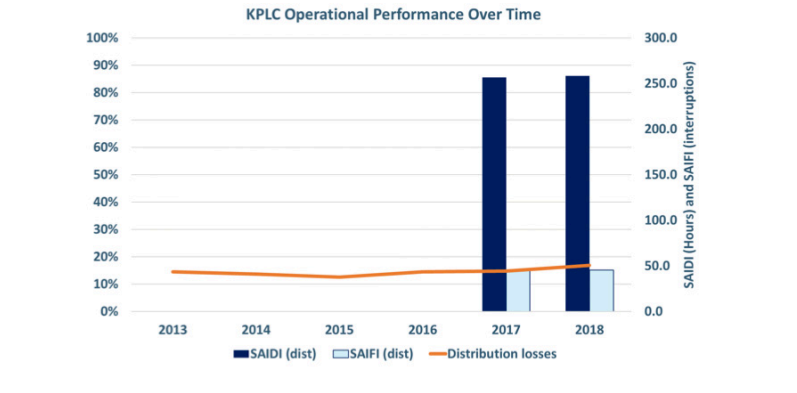
Scope of the utility's activities

KPLC is an electricity transmission and distribution[1] utility in Kenya, established in 1954.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	10,993	No.	Average cost of supply	20.14/0.197	LCU/USD per kWh
Customers per km electricity network (2017)	66.4	No./km	Average tariff	15.97/0.156	LCU/USD per kWh
Cost of subsistence consumption	3.24%	%	% customers with meters	100%	%
Affordability of connection fee (2015)	6.7	Mos.	% prepaid meters	71%	%
Policy to support low-volume customers	No	Y/N			

Utility performance





Financial performance

Indicator (2018)		KPLC	D Range	Unit
Cost recovery	Op. cost rec.	105.3%	67.6% -136.5%	%
	Op. & DS CR	91.2%	63.8% -126.5%	%
	Op. & DS CR, no sub.	82.5%	51.5% -107.8%	%
Liquidity	Collection rate	94.8%	38.3% -137.0%	%
	Accounts rec. %	17.7%	2.3% -227.1%	%
	Receivable days	64	8 -829	Days
	Accounts pay. %	51.0%	1.7% -300.8%	%
	Payable days	186	6 -1098	Days
	DSCR	0.5	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.2	(1.6)-7.4	Ratio
	Implied cost of debt	6.2%	6.2% -32.5%	%
Profitability	Net profit margin	1.5%	(110.4%)-9.7%	%
	EBITDA margin	20.7%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		KPLC	D Range	Unit
Reliability	SAIDI, dist.	258.2	Not applicable	Hrs
	SAIFI, dist.	45.2	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Distribution losses	16.8%	11.0% -36.0%	%
	Time to connect	97	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	Yes
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Once other income lines including connection revenues and subsidies are included KPLC just recovers its costs.*
- *The utility makes a small net profit in each year covered by the analysis.*

[1] While KPLC currently operates both transmission and distribution segments of the existing network, its main focus is on distribution and retail (KPLC serves over 7 million customers). As such, operational performance indicators of KPLC are collected for distribution segment only; KPLC's financial and operational performance is compared to performance of distribution-only utilities.

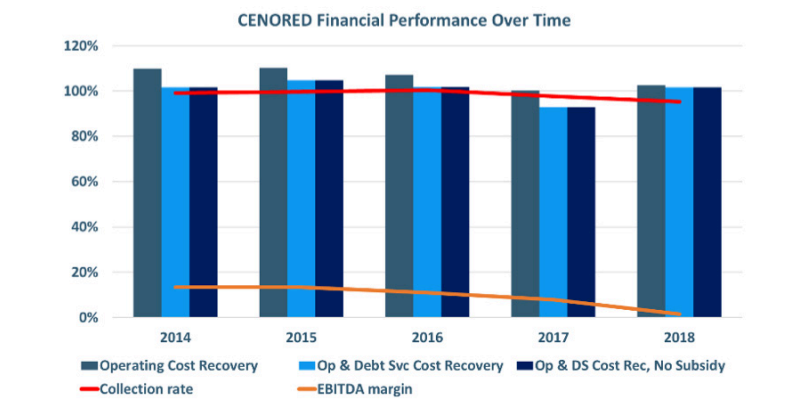
Namibia: Central North Regional Electricity Distributor (CENORED)

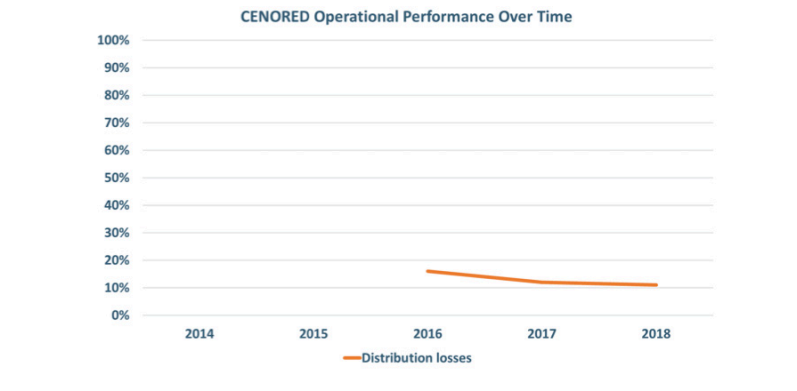
Scope of the utility's activities

CENORED is an electricity distribution utility in Namibia, established in 2003.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	212	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network (2017)	7.7	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	No data	%	% customers with meters	No data	%
Affordability of connection fee	No data	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	No data	Y/N			

Utility performance





Financial performance

Indicator (2018)		CENORED	D Range	Unit
Cost recovery	Op. cost rec.	102.5%	67.6% -136.5%	%
	Op. & DS CR	101.6%	63.8% -126.5%	%
	Op. & DS CR, no sub.	101.6%	51.5% -107.8%	%
Liquidity	Collection rate	95.3%	38.3% -137.0%	%
	Accounts rec. %	11.7%	2.3% -227.1%	%
	Receivable days	43	8 -829	Days
	Accounts pay. %	22.7%	1.7% -300.8%	%
	Payable days	83	6 -1098	Days
	DSCR	4.1	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.1	(1.6)-7.4	Ratio
	Implied cost of debt	15.9%	6.2% -32.5%	%
Profitability	Net profit margin	(1.8%)	(110.4%)-9.7%	%
	EBITDA margin	1.6%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		CENORED	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. losses	11.0%	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Until 2016, CENORED made a modest profit and recovered costs.*
- *Cost recovery and profitability have declined in recent years as overhead and personnel costs have increased.*

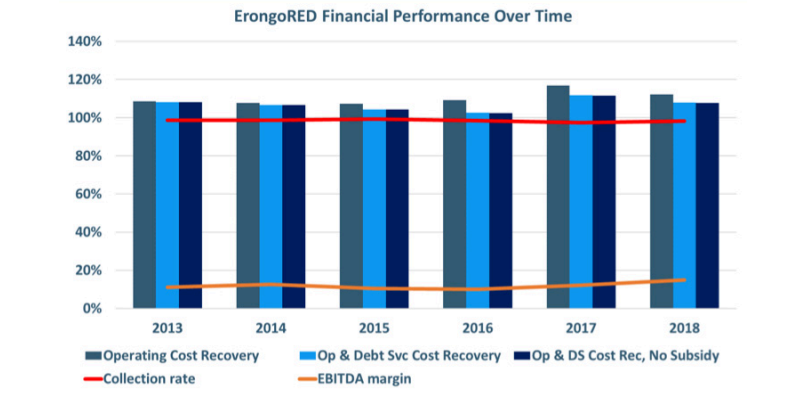
Namibia: Erongo Regional Electricity Distributor (ErongoRED)

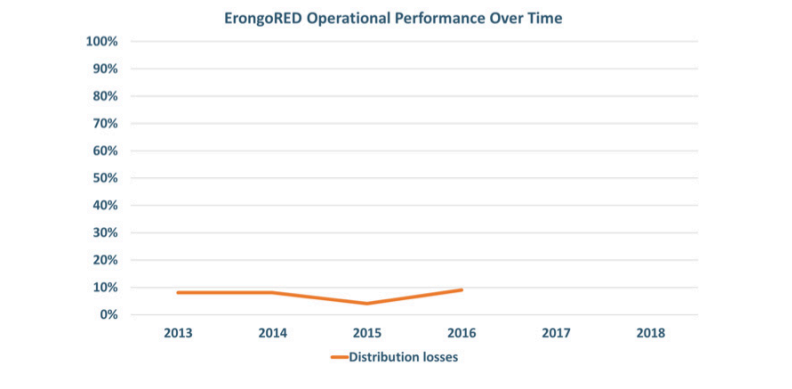
Scope of the utility's activities

ErongoRED is an electricity distribution utility in Namibia, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	310	No.	Average cost of supply	2.73/0.198	LCU/USD per kWh
Customers per km electricity network	11.1	No./km	Average tariff	2.94/0.214	LCU/USD per kWh
Cost of subsistence consumption	No data	%	% customers with meters	44%	%
Affordability of connection fee	No data	Mos.	% prepaid meters	56%	%
Policy to support low-volume customers	No data	Y/N			

Utility performance





Financial performance

Indicator (2018)		ErongoRED	D Range	Unit
Cost recovery	Op. cost rec.	112.2%	67.6% -136.5%	%
	Op. & DS CR	107.8%	63.8% -126.5%	%
	Op. & DS CR, no sub.	107.8%	51.5% -107.8%	%
Liquidity	Collection rate	98.3%	38.3% -137.0%	%
	Accounts rec. %	14.2%	2.3% -227.1%	%
	Receivable days	52	8 -829	Days
	Accounts pay. %	12.0%	1.7% -300.8%	%
	Payable days	44	6 -1098	Days
	DSCR	(0.7)	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.0	(1.6)-7.4	Ratio
	Implied cost of debt	12.7%	6.2% -32.5%	%
Profitability	Net profit margin	6.7%	(110.4%)-9.7%	%
	EBITDA margin	15.0%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		ErongoRED	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. Losses (2016)	9.0%	9.0% -23.7%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Financial performance of ErongoRED is strong throughout the analysed period, with costs recovered and a modest but consistently positive net profit margin.*

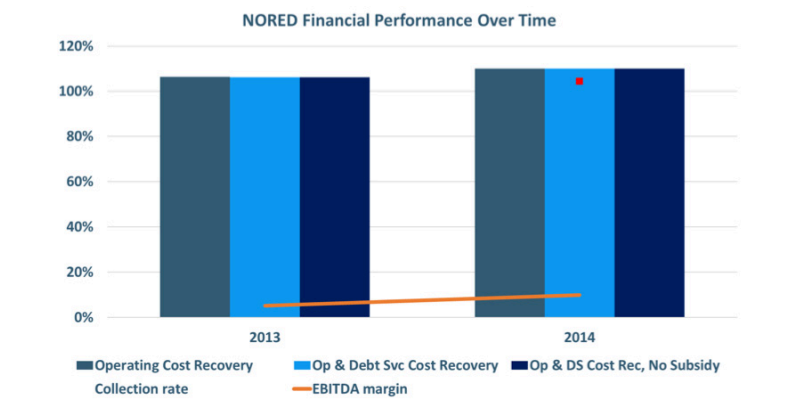
Namibia: Northern Regions Electricity Distributor (NORED)

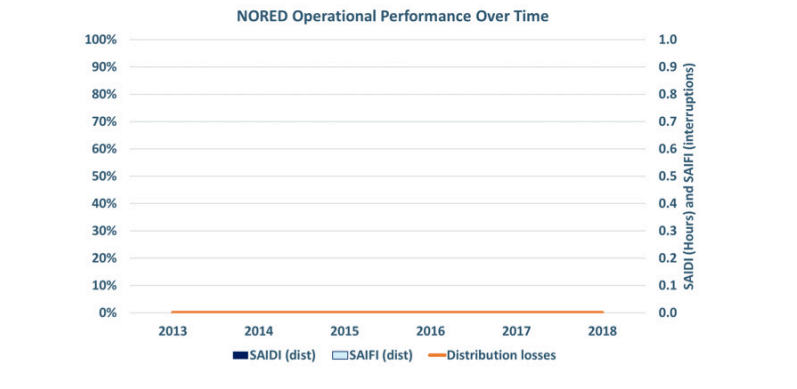
Scope of the utility's activities

NORED is an electricity distribution utility in Namibia, established in 2001.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	No data	%	% customers with meters	No data	%
Affordability of connection fee	No data	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	No data	Y/N			

Utility performance





Financial performance

Indicator (2014)		NORED	D Range	Unit
Cost recovery	Op. cost rec.	110.0%	56.6% -113.9%	%
	Op. & DS CR	110.0%	56.6% -113.9%	%
	Op. & DS CR, no sub.	110.0%	56.6% -113.9%	%
Liquidity	Collection rate	104.5%	47.0% -206.7%	%
	Accounts rec. %	10.1%	8.4% -94.4%	%
	Receivable days	37	31 -345	Days
	Accounts pay. %	5.0%	0.0% -90.2%	%
	Payable days	18	0 -329	Days
	DSCR	No data	(29.1)-4.1	Ratio
Capital structure	Maturity matching	1.0	0.7 -1.9	Ratio
	Implied cost of debt	No data	1.1% -14.9%	%
Profitability	Net profit margin	8.8%	(63.0%)-8.8%	%
	EBITDA margin	9.9%	(63.0%)-20.6%	%

Operational performance

Indicator (2018)		NORED	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *NORED recovered its costs and had low receivables and payables in both 2013 and 2014, the only years for which data were available.*
- *No operational data were available for NORED.*

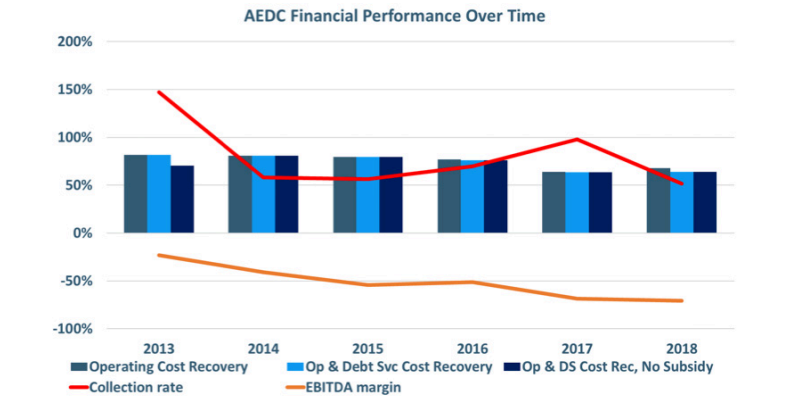
Nigeria: Abuja Electricity Distribution Company (AEDC)

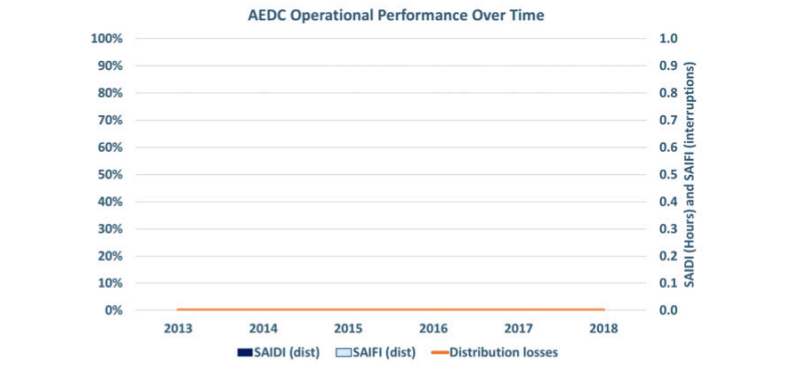
Scope of the utility's activities

AEDC is an electricity distribution utility in Nigeria, established in 2013.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		AEDC	D Range	Unit
Cost recovery	Op. cost rec.	67.6%	67.6% -136.5%	%
	Op. & DS CR	63.8%	63.8% -126.5%	%
	Op. & DS CR, no sub.	63.8%	51.5% -107.8%	%
Liquidity	Collection rate	51.6%	38.3% -137.0%	%
	Accounts rec. %	51.5%	2.3% -227.1%	%
	Receivable days	188	8 -829	Days
	Accounts pay. %	257.6%	1.7% -300.8%	%
	Payable days	940	6 -1098	Days
	DSCR	(3.6)	(14.2)-11.1	Ratio
Capital structure	Maturity matching	(1.2)	(1.6)-7.4	Ratio
	Implied cost of debt	16.8%	6.2% -32.5%	%
Profitability	Net profit margin	(104.3%)	(110.4%)-9.7%	%
	EBITDA margin	(70.8%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		AEDC	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2021	Not applicable	Y/N
	RPP	TBI 2021	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Persistently low tariffs mean that cost recovery and profitability indicators are some of the worst across the continent.*
- *AEDC, in common with other Nigerian distributors has a substantial and growing negative equity balance.*
- *Low collection rates exacerbate the situation, with a large accounts receivable balance building up. No bad debt expense is recognised although it seems unlikely that the full balance is recoverable.*

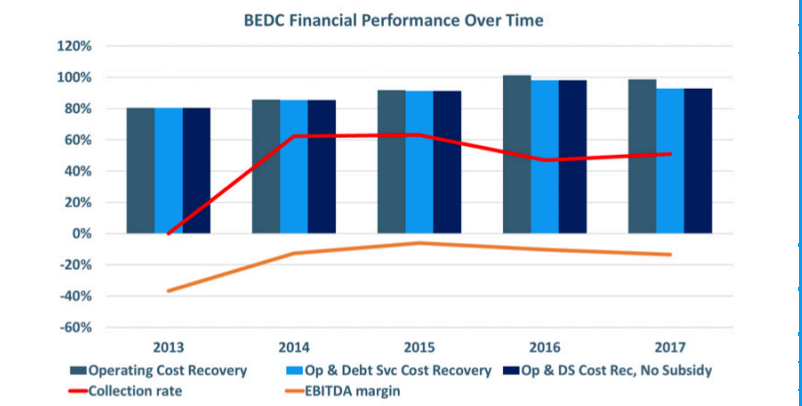
Nigeria: Benin Electricity Distribution Company (BEDC)

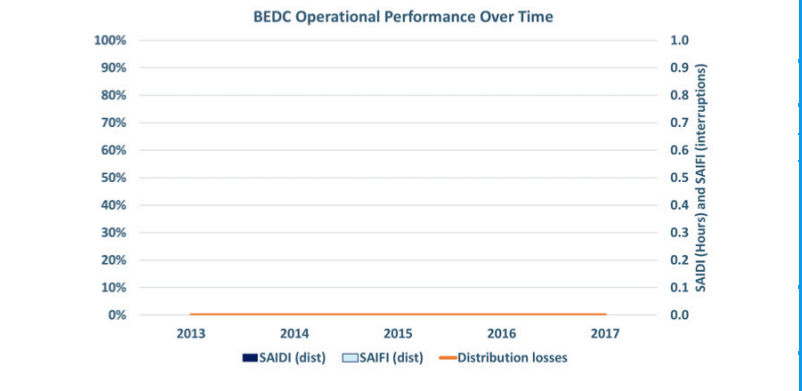
Scope of the utility's activities

BEDC is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2017)		Utility	D Range	Unit
Cost recovery	Op. cost rec.	98.7%	64.1% -145.5%	%
	Op. & DS CR	92.9%	61.4% -135.5%	%
	Op. & DS CR, no sub.	92.9%	46.1% -108.8%	%
Liquidity	Collection rate	51.0%	33.0% -108.4%	%
	Accounts rec. %	129.9%	10.7% -197.9%	%
	Receivable days	474	39 -722	Days
	Accounts pay. %	163.3%	7.6% -249.9%	%
	Payable days	596	28 -912	Days
	DSCR	0.2	(29.7)-9.8	Ratio
Capital structure	Maturity matching	1.4	(10.7)-42.4	Ratio
	Implied cost of debt	16.0%	4.5% -25.1%	%
Profitability	Net profit margin	(13.9%)	(121.4%)-10.7%	%
	EBITDA margin	(13.4%)	(89.3%)-21.7%	%

Operational performance

Indicator (2018)		Utility	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *As of 2017, the last data in which data were available, BEDC recovered its operating costs but not when debt service costs were added.*
- *BEDC has consistently low collection rates, resulting in high receivables and payables.*
- *No operational data were available for BEDC.*

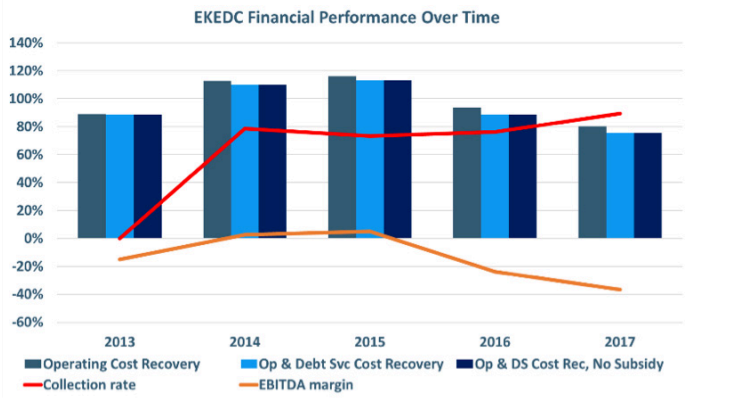
Nigeria: Eko Electricity Distribution Company (EKEDC)

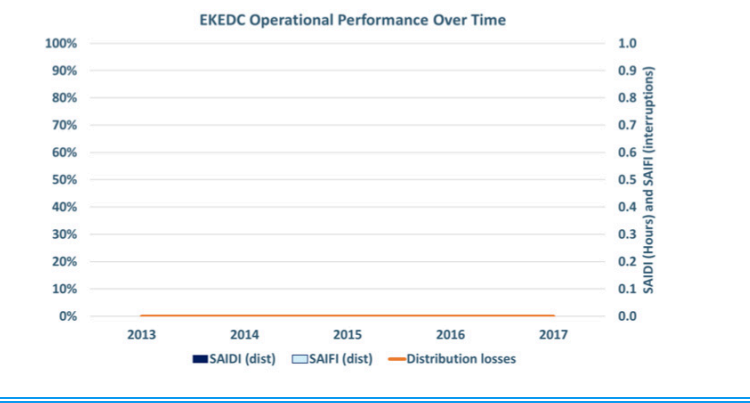
Scope of the utility's activities

EKEDC is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2017)		EKEDC	D Range	Unit
Cost recovery	Op. cost rec.	80.2%	64.1% -145.5%	%
	Op. & DS CR	75.4%	61.4% -135.5%	%
	Op. & DS CR, no sub.	75.4%	46.1% -108.8%	%
Liquidity	Collection rate	89.3%	33.0% -108.4%	%
	Accounts rec. %	27.1%	10.7% -197.9%	%
	Receivable days	99	39 -722	Days
	Accounts pay. %	110.0%	7.6% -249.9%	%
	Payable days	402	28 -912	Days
	DSCR	(1.8)	(29.7)-9.8	Ratio
Capital structure	Maturity matching	(6.6)	(10.7)-42.4	Ratio
	Implied cost of debt	17.9%	4.5% -25.1%	%
Profitability	Net profit margin	(57.2%)	(121.4%)-10.7%	%
	EBITDA margin	(36.6%)	(89.3%)-21.7%	%

Operational performance

Indicator (2018)		EKEDC	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2021	Not applicable	Y/N
	RPP	TBI 2021	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *EKEDC's cost recovery indicators are low and have declined in recent years, resulting in substantial losses.*
- *Collection rates are well below 100% and there is a substantial bad debt expense recognised.*
- *In 2017, these strains resulted in EKEDC showing a negative equity balance.*

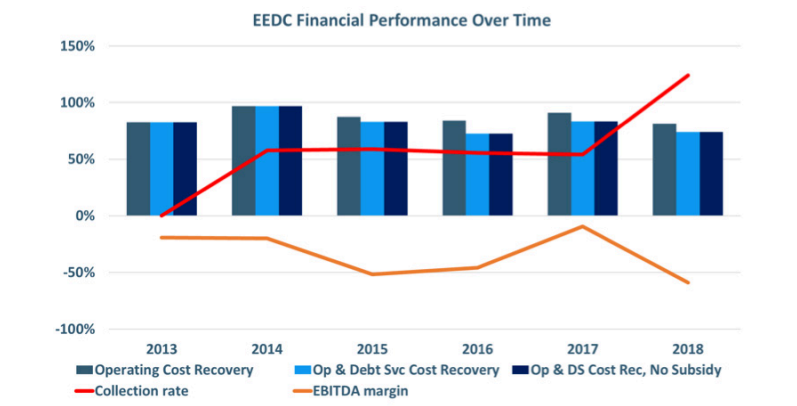
Nigeria: Enugu Electricity Distribution Company (EEDC)

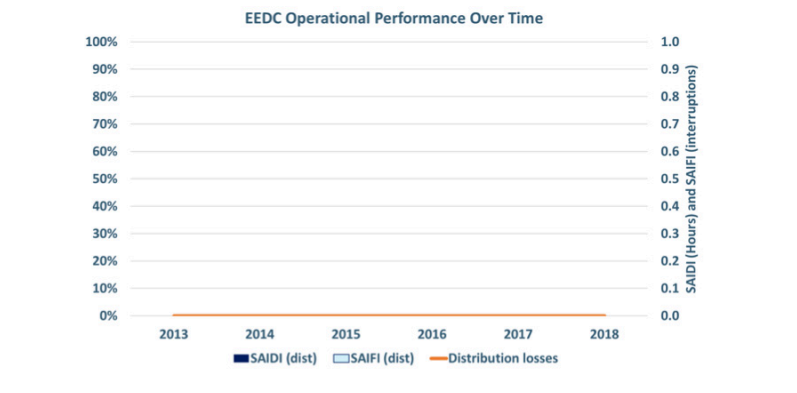
Scope of the utility's activities

EEDC is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		EEDC	D Range	Unit
Cost recovery	Op. cost rec.	81.4%	67.6% -136.5%	%
	Op. & DS CR	73.8%	63.8% -126.5%	%
	Op. & DS CR, no sub.	73.8%	51.5% -107.8%	%
Liquidity	Collection rate	124.0%	38.3% -137.0%	%
	Accounts rec. %	196.4%	2.3% -227.1%	%
	Receivable days	717	8 -829	Days
	Accounts pay. %	300.8%	1.7% -300.8%	%
	Payable days	1,098	6 -1098	Days
	DSCR	(0.2)	(14.2)-11.1	Ratio
Capital structure	Maturity matching	(0.4)	(1.6)-7.4	Ratio
	Implied cost of debt	23.8%	6.2% -32.5%	%
Profitability	Net profit margin	(104.4%)	(110.4%)-9.7%	%
	EBITDA margin	(59.1%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		EEDC	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *EEDC does not recover its operating and debt service costs.*
- *Until 2018, EEDC had low collection rates, resulting in rapidly increasing receivables and payables.*
- *No operational data were available for EEDC.*

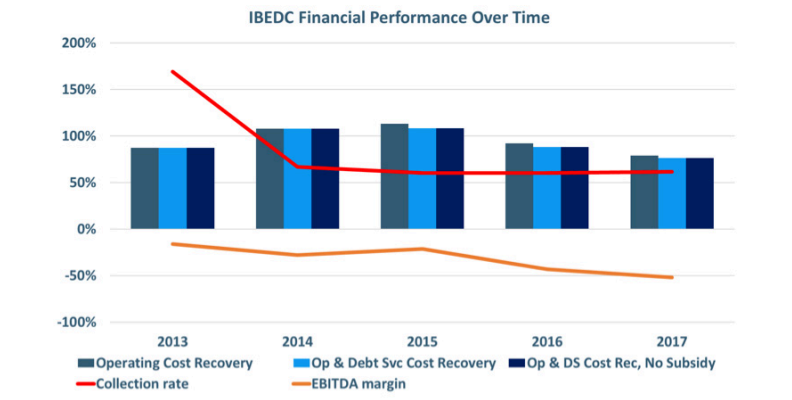
Nigeria: Ibadan Electricity Distribution Company (IBEDC)

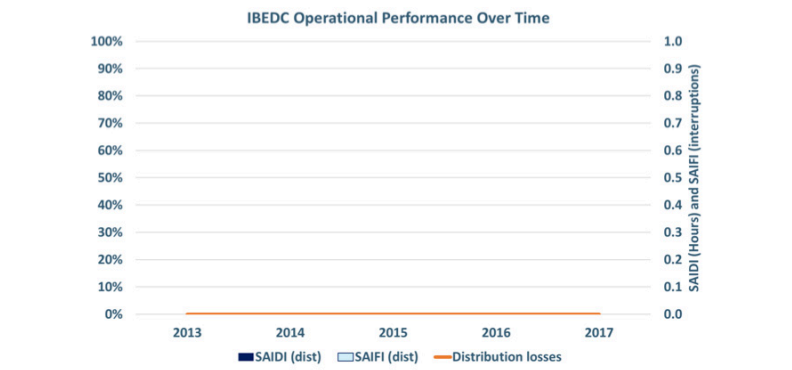
Scope of the utility's activities

IBEDC is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2017)		IBEDC	D Range	Unit
Cost recovery	Op. cost rec.	78.9%	64.1% -145.5%	%
	Op. & DS CR	76.6%	61.4% -135.5%	%
	Op. & DS CR, no sub.	76.6%	46.1% -108.8%	%
Liquidity	Collection rate	61.5%	33.0% -108.4%	%
	Accounts rec. %	113.1%	10.7% -197.9%	%
	Receivable days	413	39 -722	Days
	Accounts pay. %	164.1%	7.6% -249.9%	%
	Payable days	599	28 -912	Days
	DSCR	0.9	(29.7)-9.8	Ratio
Capital structure	Maturity matching	7.4	(10.7)-42.4	Ratio
	Implied cost of debt	10.6%	4.5% -25.1%	%
Profitability	Net profit margin	(83.3%)	(121.4%)-10.7%	%
	EBITDA margin	(52.0%)	(89.3%)-21.7%	%

Operational performance

Indicator (2018)		IBEDC	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *IBEDC does not recover its operating and debt service costs, and its performance on cost recovery has been declining since 2015.*
- *IBEDC has had low collection rates since 2014, resulting in high receivables and payables.*
- *No operational data were available for IBEDC.*

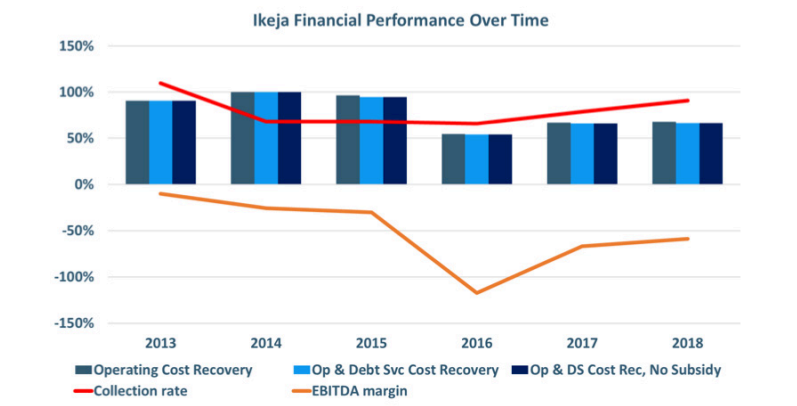
Nigeria: Ikeja Electricity Distribution Company (Ikeja)

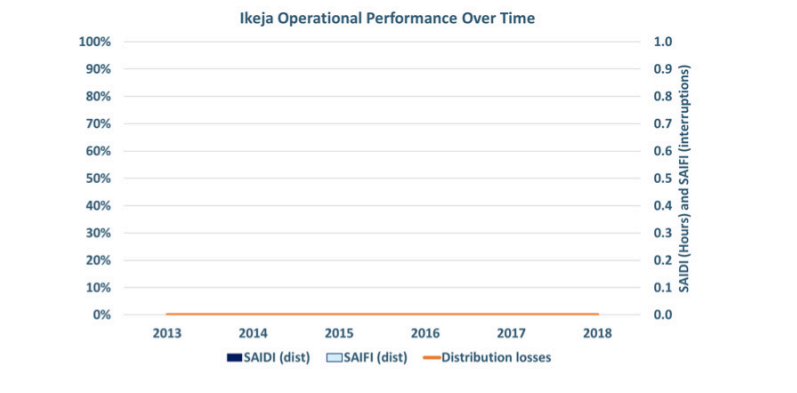
Scope of the utility's activities

Ikeja is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	50.63/0.149	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	26.91/0.079	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	No data	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		Ikeja	D Range	Unit
Cost recovery	Op. cost rec.	67.7%	67.6% -136.5%	%
	Op. & DS CR	66.5%	63.8% -126.5%	%
	Op. & DS CR, no sub.	66.5%	51.5% -107.8%	%
Liquidity	Collection rate	90.8%	38.3% -137.0%	%
	Accounts rec. %	105.2%	2.3% -227.1%	%
	Receivable days	384	8 -829	Days
	Accounts pay. %	169.1%	1.7% -300.8%	%
	Payable days	617	6 -1098	Days
	DSCR	11.1	(14.2)-11.1	Ratio
Capital structure	Maturity matching	(1.6)	(1.6)-7.4	Ratio
	Implied cost of debt	9.6%	6.2% -32.5%	%
Profitability	Net profit margin	(101.1%)	(110.4%)-9.7%	%
	EBITDA margin	(58.8%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		Ikeja	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Ikeja has persistently low cost recovery.*
- *Collection rates have been improving but have resulted in rapidly increasing receivables and payables balances.*
- *No operational data were available for Ikeja.*

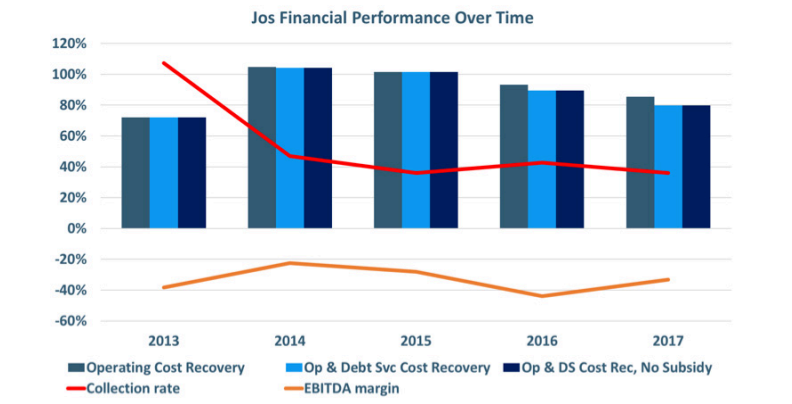
Nigeria: Jos Electricity Distribution Company (Jos)

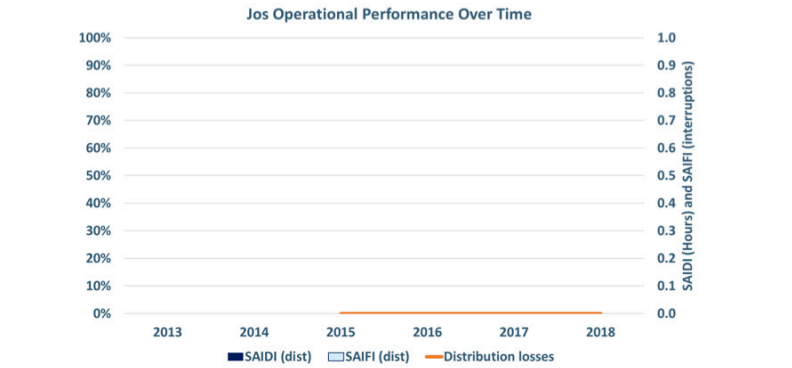
Scope of the utility's activities

Jos is an electricity distribution utility in Nigeria, established in 2013.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees (2017)	779	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	30.58%	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2017)		Jos	D Range	Unit
Cost recovery	Op. cost rec.	85.6%	64.1% -145.5%	%
	Op. & DS CR	79.8%	61.4% -135.5%	%
	Op. & DS CR, no sub.	79.8%	46.1% -108.8%	%
Liquidity	Collection rate	35.9%	33.0% -108.4%	%
	Accounts rec. %	197.9%	10.7% -197.9%	%
	Receivable days	722	39 -722	Days
	Accounts pay. %	237.7%	7.6% -249.9%	%
	Payable days	868	28 -912	Days
	DSCR	0.8	(29.7)-9.8	Ratio
Capital structure	Maturity matching	(5.2)	(10.7)-42.4	Ratio
	Implied cost of debt	23.4%	4.5% -25.1%	%
Profitability	Net profit margin	(69.3%)	(121.4%)-10.7%	%
	EBITDA margin	(33.2%)	(89.3%)-21.7%	%

Operational performance

Indicator (2018)		Jos	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *Tariffs well below cost reflective levels without subsidy to plug the gap has resulted in chronically low profitability and cost recovery, something that is common across most Nigerian distributors.*
- *Further, poor collections have resulted in escalating accounts, with near 2 years of accounts receivable outstanding at the end of 2017 (although a large provision offsets much of this balance).*
- *The utility has a large negative equity position at the end of 2017.*

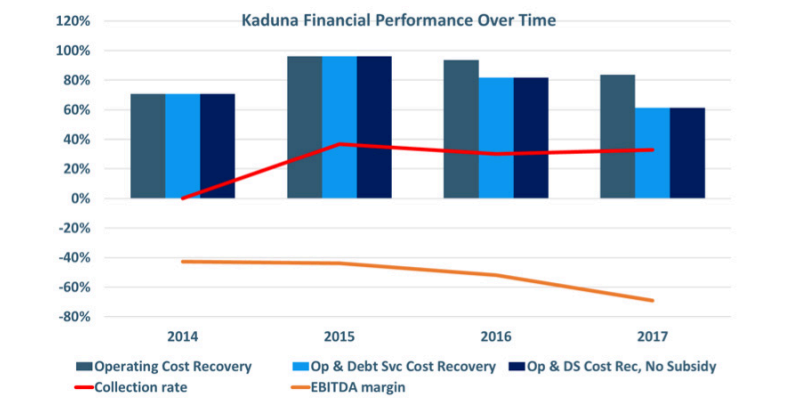
Nigeria: Kaduna Electricity Distribution Company (Kaduna)

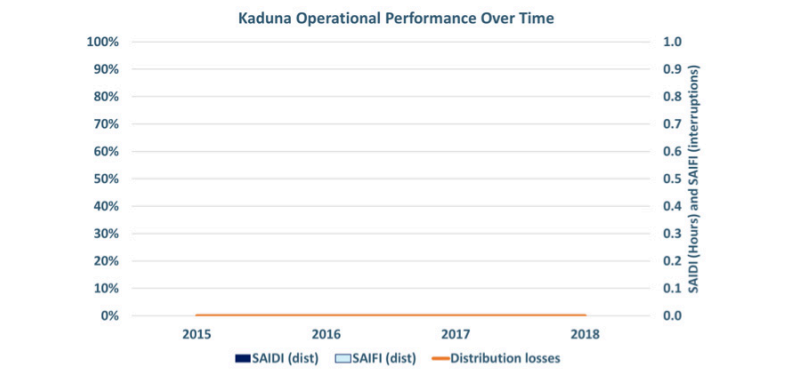
Scope of the utility's activities

Kaduna is an electricity distribution utility in Nigeria, established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees (2017)	2,583	No.	Average cost of supply (2017)	65.10/0.208	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff (2017)	30.53/0.097	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	34.92%	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2017)		Kaduna	D Range	Unit
Cost recovery	Op. cost rec.	83.8%	64.1% -145.5%	%
	Op. & DS CR	61.4%	61.4% -135.5%	%
	Op. & DS CR, no sub.	61.4%	46.1% -108.8%	%
Liquidity	Collection rate	33.0%	33.0% -108.4%	%
	Accounts rec. %	193.1%	10.7% -197.9%	%
	Receivable days	705	39 -722	Days
	Accounts pay. %	249.9%	7.6% -249.9%	%
	Payable days	912	28 -912	Days
	DSCR	No data	(29.7)-9.8	Ratio
Capital structure	Maturity matching	(2.1)	(10.7)-42.4	Ratio
	Implied cost of debt	No data	4.5% -25.1%	%
Profitability	Net profit margin	(117.8%)	(121.4%)-10.7%	%
	EBITDA margin	(68.9%)	(89.3%)-21.7%	%

Operational performance

Indicator (2018)		Kaduna	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *Tariffs well below cost reflective levels without subsidy to plug the gap has resulted in chronically low profitability and cost recovery, something that is common across most Nigerian distributors.*
- *Further, poor collections have resulted in escalating receivables, with near 2 years of accounts receivable outstanding at the end of 2017 (although a large provision offsets much of this balance).*
- *The utility has a large negative equity position at the end of 2017.*

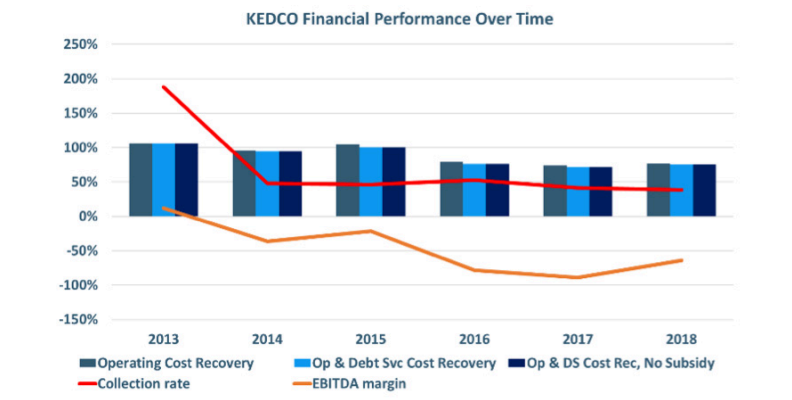
Nigeria: Kano Electricity Distribution Company (KEDCO)

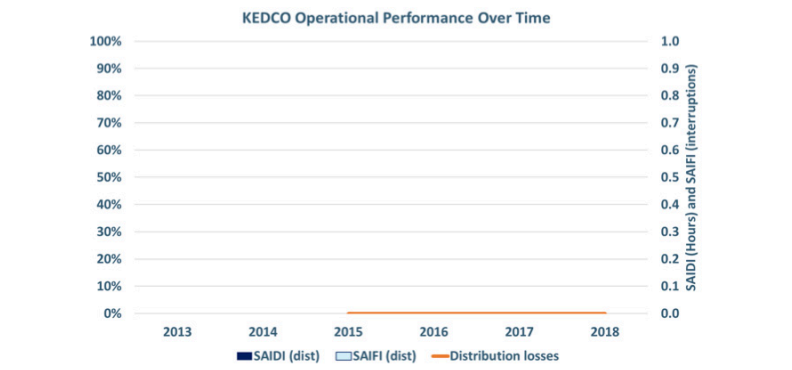
Scope of the utility's activities

KEDCO is an electricity distribution utility in Nigeria, established in 2012.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	2,700	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	27.06%	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		KEDCO	D Range	Unit
Cost recovery	Op. cost rec.	76.7%	67.6% -136.5%	%
	Op. & DS CR	75.5%	63.8% -126.5%	%
	Op. & DS CR, no sub.	75.5%	51.5% -107.8%	%
Liquidity	Collection rate	38.3%	38.3% -137.0%	%
	Accounts rec. %	183.6%	2.3% -227.1%	%
	Receivable days	670	8 -829	Days
	Accounts pay. %	245.8%	1.7% -300.8%	%
	Payable days	897	6 -1098	Days
	DSCR	1.5	(14.2)-11.1	Ratio
Capital structure	Maturity matching	(1.5)	(1.6)-7.4	Ratio
	Implied cost of debt	13.9%	6.2% -32.5%	%
Profitability	Net profit margin	(110.4%)	(110.4%)-9.7%	%
	EBITDA margin	(64.0%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		KEDCO	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	Yes
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Tariffs well below cost reflective levels in recent years without subsidy to plug the gap, combined with high losses, have resulted in chronically low profitability and cost recovery, something that is common across most Nigerian distributors.*
- *Further, poor collections have resulted in escalating receivables, with near 2 years of accounts receivable outstanding at the end of 2017 (although a large provision offsets much of this balance).*
- *The utility has a large negative equity position both at the end of 2017 and at the end of 2018.*

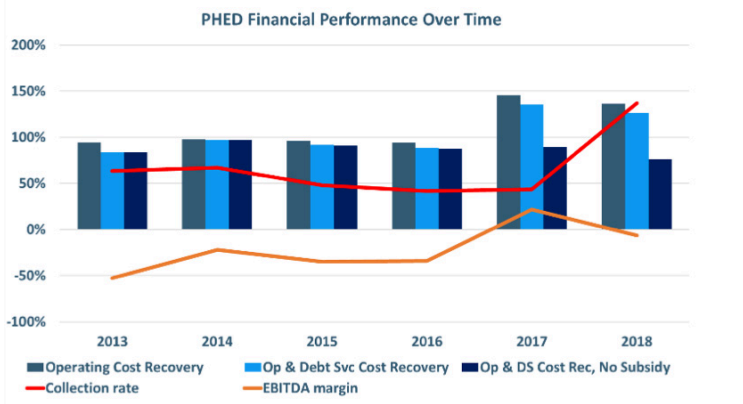
Nigeria: Port Harcourt Electricity Distribution Company (PHED)

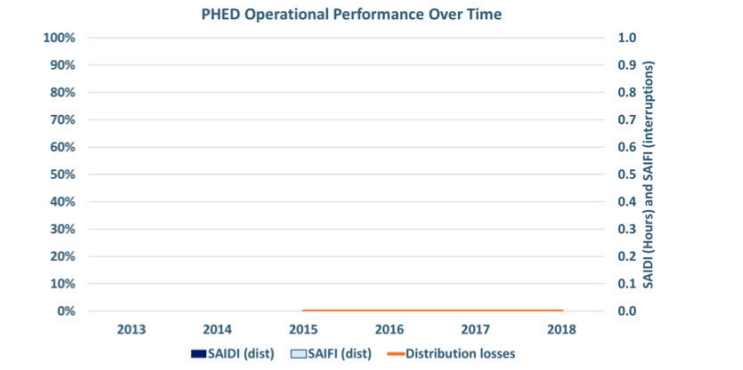
Scope of the utility's activities

PHED is an electricity distribution utility in Nigeria, established in 2005. Since 2013, it has been privately owned by the 4Power Consortium.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	1,122	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	55.40%	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		PHED	D Range	Unit
Cost recovery	Op. cost rec.	136.5%	67.6% -136.5%	%
	Op. & DS CR	126.5%	63.8% -126.5%	%
	Op. & DS CR, no sub.	76.3%	51.5% -107.8%	%
Liquidity	Collection rate	137.0%	38.3% -137.0%	%
	Accounts rec. %	227.1%	2.3% -227.1%	%
	Receivable days	829	8 -829	Days
	Accounts pay. %	61.8%	1.7% -300.8%	%
	Payable days	226	6 -1098	Days
	DSCR	0.6	(14.2)-11.1	Ratio
Capital structure	Maturity matching	2.3	(1.6)-7.4	Ratio
	Implied cost of debt	19.8%	6.2% -32.5%	%
Profitability	Net profit margin	(29.9%)	(110.4%)-9.7%	%
	EBITDA margin	(6.6%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		PHED	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *PHED on the surface appears to be in a stronger financial position than most Nigerian utilities, with a positive equity balance.*
- *While cost recovery has been below 100% in most years, explicit subsidies have led to some recovery over the period 2017-2018.*
- *Accounts receivable are well over 2x annual revenues, although much of this balance is provided for.*

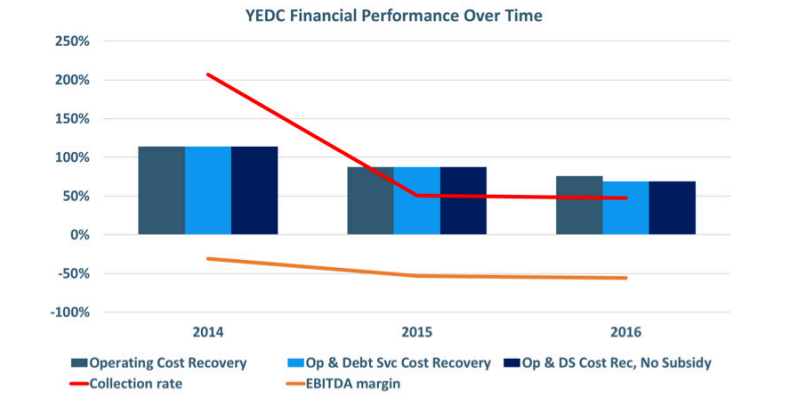
Nigeria: Yola Electricity Distribution Company (YEDC)

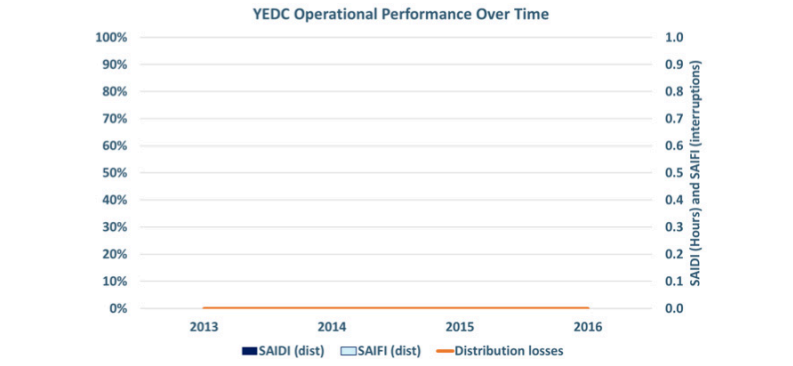
Scope of the utility's activities

YEDC is an electricity distribution utility in Nigeria, established in 2005 and privatized in 2013.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees (2015)	886	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	0.33%	%	% customers with meters	20.25%	%
Affordability of connection fee	2.14	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2016)		YEDC	D Range	Unit
Cost recovery	Op. cost rec.	76.0%	54.5% -122.4%	%
	Op. & DS CR	68.9%	54.1% -111.8%	%
	Op. & DS CR, no sub.	68.9%	48.6% -111.8%	%
Liquidity	Collection rate	47.3%	30.3% -108.2%	%
	Accounts rec. %	83.2%	4.9% -156.6%	%
	Receivable days	304	18 -572	Days
	Accounts pay. %	149.2%	2.3% -173.6%	%
	Payable days	545	8 -634	Days
	DSCR	No data	(25.9)-1.9	Ratio
Capital structure	Maturity matching	(0.3)	(12.5)-3.5	Ratio
	Implied cost of debt	No data	4.5% -49.7%	%
Profitability	Net profit margin	(69.3%)	(101.8%)-10.2%	%
	EBITDA margin	(55.5%)	(117.5%)-24.3%	%

Operational performance

Indicator (2018)		YEDC	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	No data	Not applicable	Y/N
	RPP	No data	Not applicable	Y/N
Efficiency	Dist. losses	No data	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	Yes
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *Tariffs well below cost reflective levels in recent years without subsidy to plug the gap have resulted in chronically low profitability and cost recovery, something that is common across most Nigerian distributors.*
- *Further, poor collections (<50%) have resulted in poor liquidity.*
- *The utility has a negative equity position since 2015.*

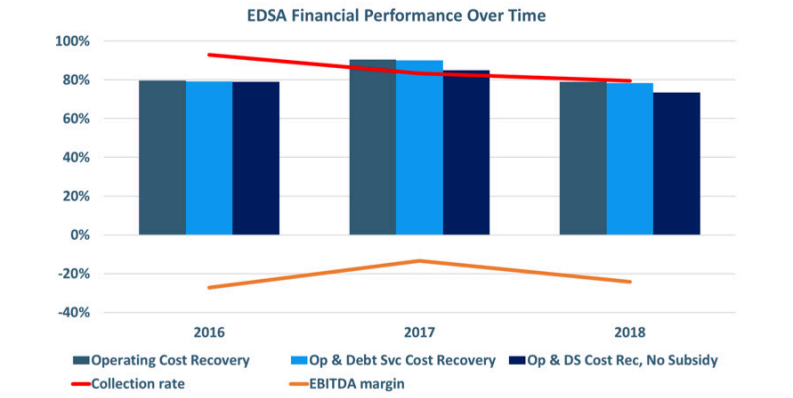
Sierra Leone: Electricity Distribution and Supply Authority (EDSA)

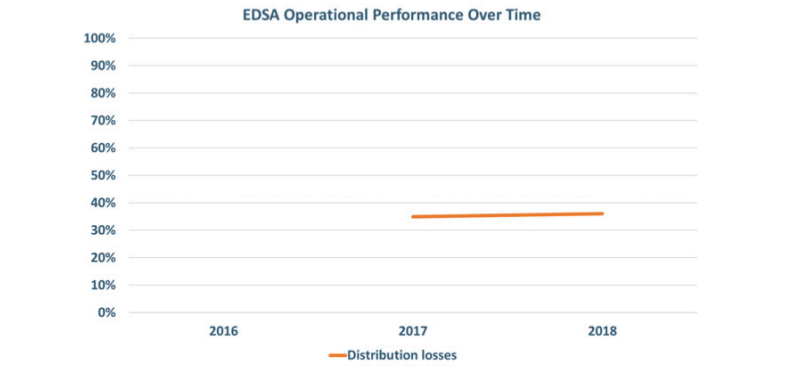
Scope of the utility's activities

EDSA is an electricity distribution utility in Sierra Leone, established in 2014 when it was unbundled from the former vertically integrated utility National Power Authority (NPA).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	No data	No.	Average cost of supply	1,772.19/0.219	LCU/USD per kWh
Customers per km electricity network	354.0	No./km	Average tariff (2017)	1,450.00/0.193	LCU/USD per kWh
Cost of subsistence consumption	8.49%	%	% customers with meters	No data	%
Affordability of connection fee	2.46	Mos.	% prepaid meters	13.84%	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		EDSA	D Range	Unit
Cost recovery	Op. cost rec.	78.9%	67.6% -136.5%	%
	Op. & DS CR	78.4%	63.8% -126.5%	%
	Op. & DS CR, no sub.	73.4%	51.5% -107.8%	%
Liquidity	Collection rate	79.6%	38.3% -137.0%	%
	Accounts rec. %	59.7%	2.3% -227.1%	%
	Receivable days	218	8 -829	Days
	Accounts pay. %	89.2%	1.7% -300.8%	%
	Payable days	326	6 -1098	Days
	DSCR	No data	(14.2)-11.1	Ratio
Capital structure	Maturity matching	7.4	(1.6)-7.4	Ratio
	Implied cost of debt	No data	6.2% -32.5%	%
Profitability	Net profit margin	(28.9%)	(110.4%)-9.7%	%
	EBITDA margin	(24.2%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		EDSA	D Range	Unit
Reliability	SAIDI, dist.	No data	Not applicable	Hrs
	SAIFI, dist.	No data	Not applicable	Ints
	MIS	TBI 2020	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. losses	36.0%	11.0% -36.0%	%
	Time to connect	No data	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *Cost recovery, profitability and cash collection indicators are poor.*
- *In 2017, EDSA moved into a negative equity position.*

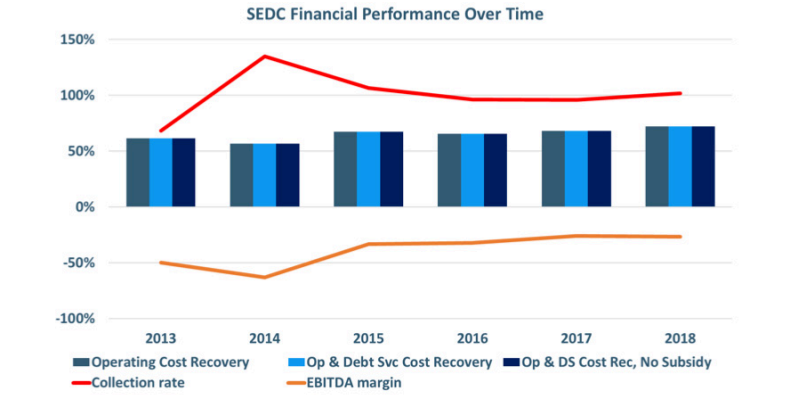
Sudan: Sudanese Electricity Distribution Company (SEDC)

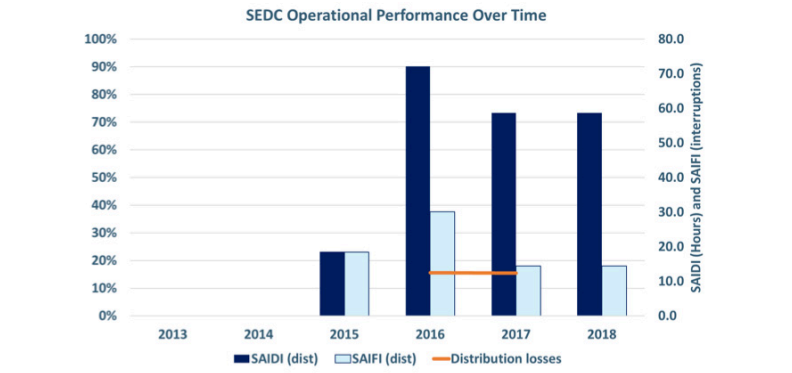
Scope of the utility's activities

SEDC is an electricity distribution utility in Sudan, established in 2010 when it was unbundled from the former vertically integrated utility National Electricity Corporation (NEC).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	6,094	No.	Average cost of supply	0.82/0.034	LCU/USD per kWh
Customers per km electricity network (2017)	38.8	No./km	Average tariff	0.59/0.024	LCU/USD per kWh
Cost of subsistence consumption	3.13%	%	% customers with meters (2015)	100%	%
Affordability of connection fee	1.39	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		SEDC	D Range	Unit
Cost recovery	Op. cost rec.	72.1%	67.6% -136.5%	%
	Op. & DS CR	72.1%	63.8% -126.5%	%
	Op. & DS CR, no sub.	72.1%	51.5% -107.8%	%
Liquidity	Collection rate	101.8%	38.3% -137.0%	%
	Accounts rec. %	4.0%	2.3% -227.1%	%
	Receivable days	15	8 -829	Days
	Accounts pay. %	9.0%	1.7% -300.8%	%
	Payable days	33	6 -1098	Days
	DSCR	No data	(14.2)-11.1	Ratio
Capital structure	Maturity matching	0.9	(1.6)-7.4	Ratio
	Implied cost of debt	No data	6.2% -32.5%	%
Profitability	Net profit margin	(26.8%)	(110.4%)-9.7%	%
	EBITDA margin	(26.6%)	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		SEDC	D Range	Unit
Reliability	SAIDI, dist.	58.6	Not applicable	Hrs
	SAIFI, dist.	14.4	Not applicable	Ints
	MIS	No	Not applicable	Y/N
	RPP	No	Not applicable	Y/N
Efficiency	Dist. Losses (2017)	15.4%	12.0% -35.0%	%
	Time to connect	70	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	Yes

Important developments

- *SEDC does not recover its costs and makes a substantial loss. However, the collection rate is good and accounts receivable are low and stable.*
- *Only basic financial data is available for SEDC, meaning that there is little information on detailed indicators (e.g. subsidies).*

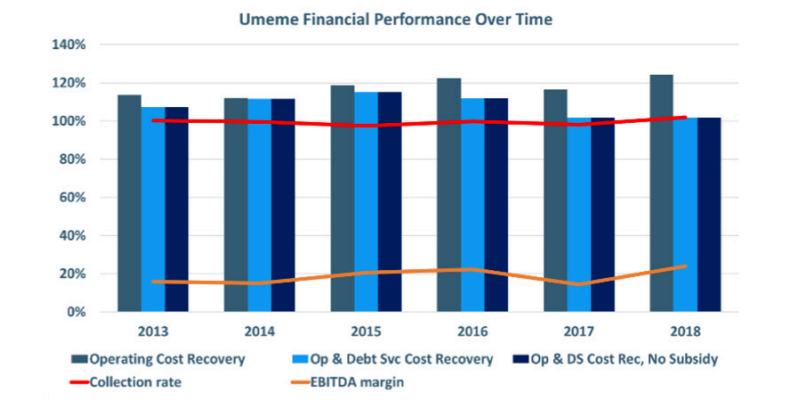
Uganda: Umeme

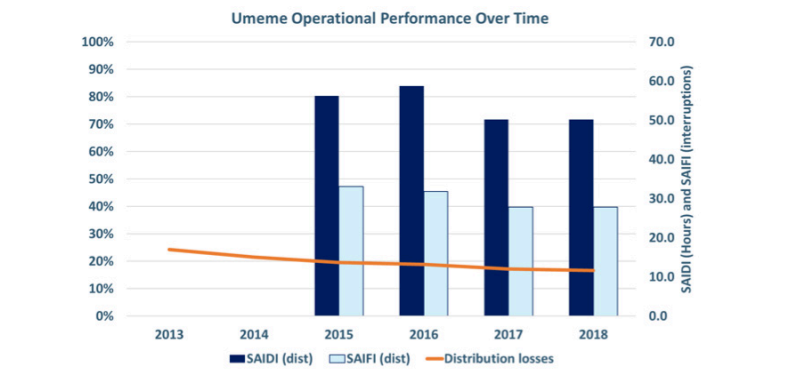
Scope of the utility's activities

Umeme is an electricity distribution utility in Uganda, operating on a 20-year concession agreement with the Uganda Government established in 2005.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees	1,514	No.	Average cost of supply	488.98/0.131	LCU/USD per kWh
Customers per km electricity network	37.8	No./km	Average tariff	495.93/0.133	LCU/USD per kWh
Cost of subsistence consumption	7.34%	%	% customers with meters	No data	%
Affordability of connection fee	0.69	Mos.	% prepaid meters	79.0%	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		Umeme	D Range	Unit
Cost recovery	Op. cost rec.	124.3%	67.6% -136.5%	%
	Op. & DS CR	101.9%	63.8% -126.5%	%
	Op. & DS CR, no sub.	101.9%	51.5% -107.8%	%
Liquidity	Collection rate	102.0%	38.3% -137.0%	%
	Accounts rec. %	14.4%	2.3% -227.1%	%
	Receivable days	53	8 -829	Days
	Accounts pay. %	40.2%	1.7% -300.8%	%
	Payable days	147	6 -1098	Days
	DSCR	0.8	(14.2)-11.1	Ratio
Capital structure	Maturity matching	1.2	(1.6)-7.4	Ratio
	Implied cost of debt	11.3%	6.2% -32.5%	%
Profitability	Net profit margin	9.7%	(110.4%)-9.7%	%
	EBITDA margin	24.1%	(70.8%)-24.1%	%

Operational performance

Indicator (2018)		Umeme	D Range	Unit
Reliability	SAIDI, dist.	50.2	Not applicable	Hrs
	SAIFI, dist.	27.8	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	Dist. losses	16.6%	11.0% -36.0%	%
	Time to connect	66	66 -98	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	Yes
	Annual report published on utility website	Yes
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	Yes
	Annual report includes relevant KPIs	Yes
Integrity and internal controls	Annual report describes Audit Committee activities	Yes
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	Yes
	Utility has customer service system in place	Yes

Important developments

- *Leading cost recovery and collection rate metrics when compared against its peers.*
- *Receivable days have declined by more than half over the period 2013–2018.*
- *Gearing has increased slightly, reaching ~27% in 2018, as Umeme has accelerated efforts to increase connections.*

A.2.5 Generation-transmission utilities

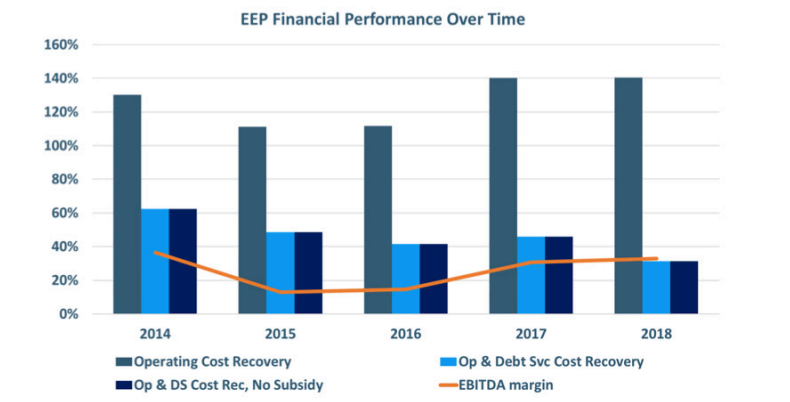
Ethiopia: Ethiopian Electric Power (EEP)

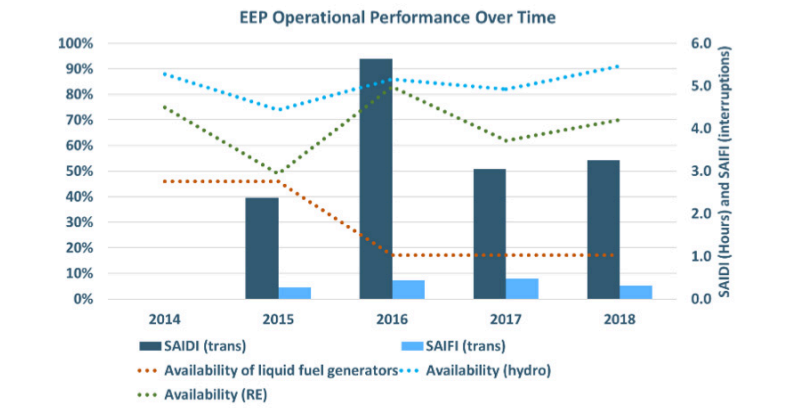
Scope of the utility's activities

EEP is an electricity generation and transmission utility in Ethiopia, established in 2014, when it was unbundled from the former vertically integrated electricity utility Ethiopian Electric Power Corporation (EEPCo).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	4,234	MW	Average cost of supply	1.21/0.046	LCU/USD per kWh
Peak dispatchable generation capacity	3,472	MW	Average tariff	0.46/0.017	LCU/USD per kWh
Number of employees	No data	No.			

Utility performance





Financial performance

Indicator (2018)		EEP	G/T Range	Unit
Cost recovery	Op. cost rec.	140.3%	128.0% -140.3%	%
	Op. & DS CR	31.4%	31.4% -128.0%	%
	Op. & DS CR, no sub.	31.4%	31.4% -128.0%	%
Liquidity	Accounts rec. %	45.7%	45.7% -134.5%	%
	Receivable days	167	167 -491	Days
	Accounts pay. %	474.1%	1.5% -474.1%	%
	Payable days	1,731	6 -1731	Days
	DSCR	(1.4)	(1.4)-(1.4)	Ratio
Capital structure	Maturity matching	1.1	0.1 -1.1	Ratio
	Implied cost of debt	2.4%	2.4% -2.4%	%
Profitability	Net profit margin	(385.0%)	(385.0%)-21.0%	%
	EBITDA margin	32.9%	21.9% -32.9%	%

Operational performance

Indicator (2018)		EEP	G/T Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	17.2%	17.2% -17.2%	%
	Availability (gas)	No data	No data	%
	Availability (hydro)	91.0%	82.0% -82.0%	%
	Availability (RE)	70.0%	62.0% -62.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	3.1	Not applicable	Hrs
	SAIFI, trans.	0.3	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
Efficiency	Trans. losses	No data	No data	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	Yes
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	Yes
	Utility uses eProcurement and open contracting	No

Important developments

- *EEP is highly geared and cost recovery is poor once the need to cover debt service costs is considered.*
- *This impact is, if anything, underestimated by the above analysis as it is understood that EEP has underpaid due debt service payments, although this has not been accounted for in the financial statements.*

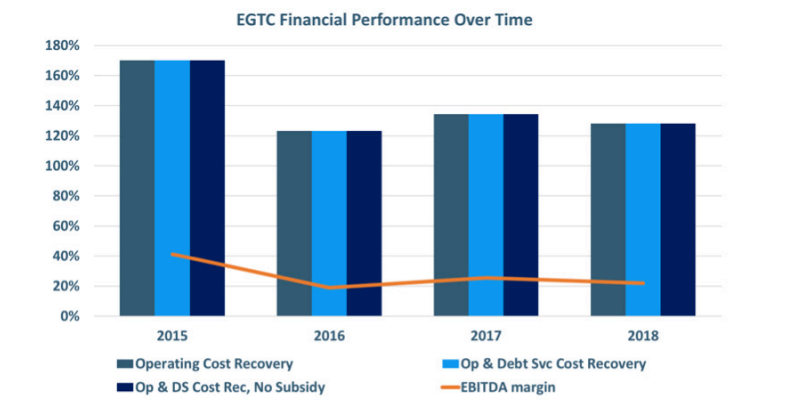
Sierra Leone: Electricity Generation and Transmission Company (EGTC)

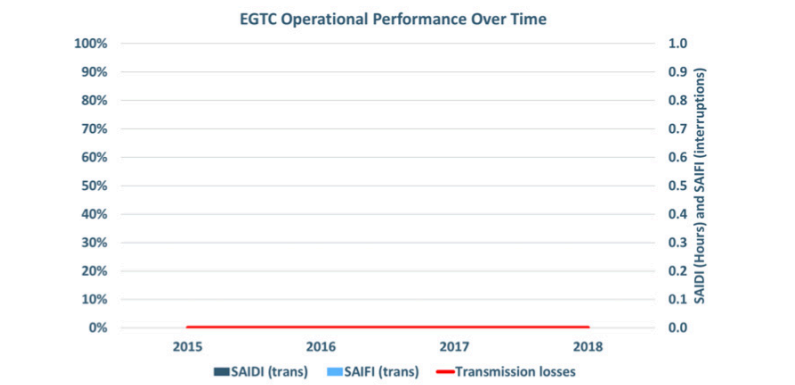
Scope of the utility's activities

EGTC is an electricity generation and transmission utility in Sierra Leone, established in 2014 when it was unbundled from the former vertically integrated utility National Power Authority (NPA).

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Generation capacity	92.2	MW	Customers per km electricity network	No data	No./km
Peak dispatchable generation capacity	90.2	MW	Average cost of supply	No data	LCU/USD per kWh
Number of employees	No data	No.	Average tariff	No data	LCU/USD per kWh

Utility performance





Financial performance

Indicator (2018)		EGTC	G/T Range	Unit
Cost recovery	Op. cost rec.	128.0%	128.0% -140.3%	%
	Op. & DS CR	128.0%	31.4% -128.0%	%
	Op. & DS CR, no sub.	128.0%	31.4% -128.0%	%
Liquidity	Accounts rec. %	134.5%	45.7% -134.5%	%
	Receivable days	491	167 -491	Days
	Accounts pay. %	1.5%	1.5% -474.1%	%
	Payable days	6	6 -1731	Days
	DSCR	No data	(1.4) - (1.4)	Ratio
Capital structure	Maturity matching	0.1	0.1 -1.1	Ratio
	Implied cost of debt	No data	2.4% -2.4%	%
Profitability	Net profit margin	21.0%	(385.0%)-21.0%	%
	EBITDA margin	21.9%	21.9% -32.9%	%

Operational performance

Indicator (2018)		EGTC	G/T Range	Unit
Reliability	Availability (solid)	No data	No data	%
	Availability (liquid)	No data	17.2% -17.2%	%
	Availability (gas)	No data	No data	%
	Availability (hydro)	No data	91.0% -91.0%	%
	Availability (RE)	No data	70.0% -70.0%	%
	Availability (nuclear)	No data	No data	%
	SAIDI, trans.	No data	Not applicable	Hrs
	SAIFI, trans.	No data	Not applicable	Ints
	MIS	No	Not applicable	Y/N
Efficiency	Trans. losses	No data	No data	%

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No

Important developments

- *EGTC has good cost recovery and profitability indicators, but Receivable days have increased rapidly in recent years indicating cashflow issues further down the value chain.*
- *No bad debt expense has been recognised although the full recoverability of these accounts receivable is uncertain.*

A.2.6 Transmission-distribution utilities

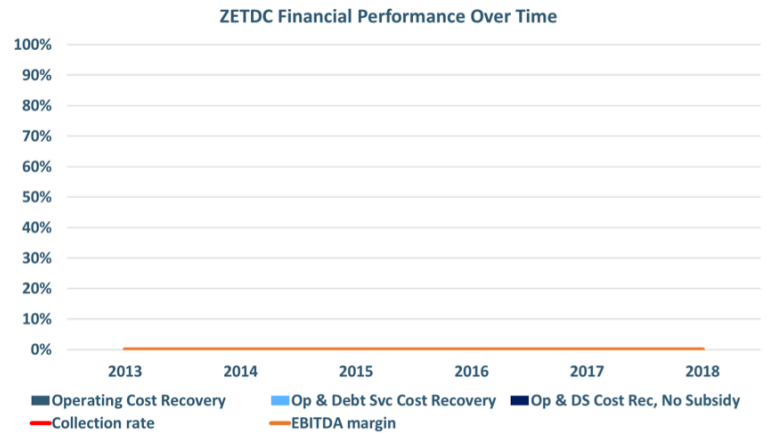
Zimbabwe: Zimbabwe Electricity Transmission and Distribution Company (ZETDC)

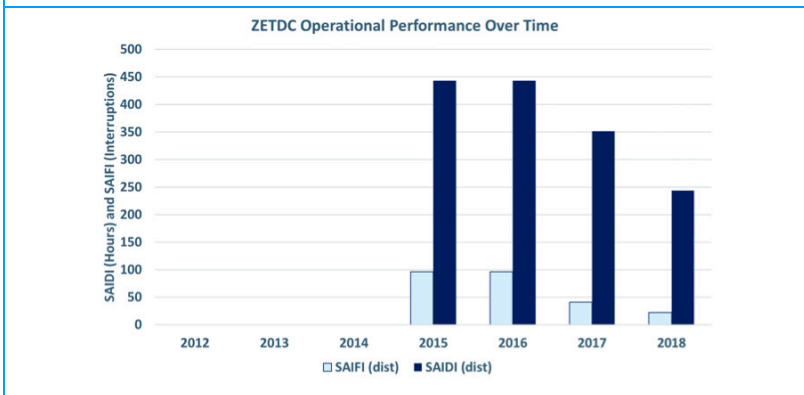
Scope of the utility's activities

ZETDC is an electricity transmission and distribution utility in Zimbabwe, established in 1996.

Utility information (2018)	Data	Unit	Utility information (2018)	Data	Unit
Number of employees (2012)	4,477	No.	Average cost of supply	No data	LCU/USD per kWh
Customers per km electricity network	No data	No./km	Average tariff	No data	LCU/USD per kWh
Cost of subsistence consumption	11.26%	%	% customers with meters	No data	%
Affordability of connection fee	2.92%	Mos.	% prepaid meters	No data	%
Policy to support low-volume customers	Yes	Y/N			

Utility performance





Financial performance

Indicator (2018)		ZETDC	T/D Range	Unit
Cost recovery	Op. cost rec.	No data	No data	%
	Op. & DS CR	No data	No data	%
	Op. & DS CR, no sub.	No data	No data	%
Liquidity	Collection rate	No data	No data	%
	Accounts rec. %	No data	No data	%
	Receivable days	No data	No data	Days
	Accounts pay. %	No data	No data	%
	Payable days	No data	No data	Days
	DSCR	No data	No data	Ratio
Capital structure	Maturity matching	No data	No data	Ratio
	Implied cost of debt	No data	No data	%
Profitability	Net profit margin	No data	No data	%
	EBITDA margin	No data	No data	%

Operational performance

Indicator (2018)		ZETDC	T/D Range	Unit
Reliability	SAIDI, trans.	No data	No data	Hrs
	SAIFI, trans.	No data	No data	Ints
	SAIDI, dist.	243.6	Not applicable	Hrs
	SAIFI, dist.	21.6	Not applicable	Ints
	MIS	Yes	Not applicable	Y/N
	RPP	Yes	Not applicable	Y/N
Efficiency	System losses	16.9%	16.9% - 16.9%	%
	Time to connect	106	106 -106	Days

Accountability/transparency performance

Indicator (2018)		Y/N
Perf. mgmt.	Utility has a public performance agreement	No
	Financial statements published on utility website	No
	Annual report published on utility website	No
	Independent external audit of financial statements	No
	Audit opinion unqualified	No
	Annual report includes relevant KPIs	No
Integrity and internal controls	Annual report describes Audit Committee activities	No
	Utility has system of internal controls & audit	No
	Utility uses eProcurement and open contracting	No
Stakeholder relations	Utility website provides relevant info. to customers	No
	Utility has customer service system in place	No

Important developments

- *No financial data were available for ZETDC.*
- *ZETDC's performance on distribution SAIDI and SAIFI is poor but has been improving since 2016.*

A.3 Indicator summary tables

The tables below summarize the results (in the most recent year for which data were available) for each utility against each indicator.

A.3.1 Financial performance indicators

Table A.13 Operating cost recovery (cash collected), including subsidies

Indicator: Operating cost recovery (cash collected), including subsidies

Definition: Total revenue plus operating subsidies minus cashflow from change in net trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) minus bad debt expense plus cashflow from change in deferred revenue from prepaid sales, all divided by operating costs (cost of sales + other operating expenses - bad debt expense + income tax)

Operating cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	90.2	436.5	43.7
Botswana	Botswana Power Corporation (BPC)	2018	114.2	436.5	43.7
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	118.5	436.5	43.7
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	97.1	436.5	43.7
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	92.4	436.5	43.7
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	436.5	436.5	43.7
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	47.5	436.5	43.7
Chad	Société Nationale d'Electricité (SNE)	2018	83.9	436.5	43.7
Comoros	Electricité d'Anjouan (EDA)	2018	95.7	436.5	43.7
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	75.7	436.5	43.7
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	98.8	436.5	43.7
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	121.2	496.9	45.7
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	83.1	436.5	43.7

Operating cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	127.5	436.5	43.7
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	92.5	436.5	43.7
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	117.8	476.4	52.8
Guinea	Electricité de Guinée (EDG)	2016	82.0	498.9	45.7
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	85.7	498.9	45.7
Lesotho	Lesotho Electricity Company (LEC)	2016	113.0	498.9	45.7
Liberia	Liberia Electricity Corporation (LEC)	2018	58.8	436.5	43.7
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	73.1	436.5	43.7
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	74.8	436.5	43.7
Mali	Energie du Mali (EDM)	2018	84.1	436.5	43.7
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	122.5	436.5	43.7
Mozambique	Electricidade de Moçambique (EDM)	2018	59.1	436.5	43.7
Namibia	NamPower	2018	122.5	436.5	43.7
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	115.2	436.5	43.7
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	90.1	436.5	43.7
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	43.7	436.5	43.7
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	90.0	436.5	43.7
Seychelles	Public Utilities Corporation (PUC)	2018	115.7	436.5	43.7
South Africa	Eskom	2018	118.3	436.5	43.7
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	111.1	436.5	43.7
Togo	Electric Power Company of Togo (CEET)	2017	91.5	476.4	52.8

Operating cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Zambia	Copperbelt Energy Corporation (CEC)	2018	122.6	436.5	43.7
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	74.9	436.5	43.7
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	95.5	146.2	30.7
Ghana	Volta River Authority (VRA)	2018	88.1	146.2	30.7
Kenya	Kenya Electricity Generation Company (KenGen)	2018	146.2	146.2	30.7
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	30.7	146.2	30.7
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	119.7	146.2	30.7
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	104.3	171.0	20.0
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	171.0	171.0	20.0
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	39.9	214.5	39.9
Ghana	Ghana Grid Company (GRIDCo)	2018	214.5	214.5	39.9
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	42.1	214.5	39.9
Nigeria	Transmission Company of Nigeria (TCN)	2017	122.4	122.4	53.4
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	50.7	214.5	39.9
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	92.4	214.5	39.9
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	90.1	167.1	29.4
Ethiopia	Ethiopian Electric Utility (EEU)	2018	95.6	167.1	29.4
Ghana	Electricity Company of Ghana (ECG)	2018	70.2	167.1	29.4
Kenya	Kenya Power and Lighting Company (KPLC)	2018	100.3	167.1	29.4
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	97.7	167.1	29.4
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	110.3	167.1	29.4

Operating cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Namibia	Northern Regions Electricity Distributor (NORED)	2014	115.0	115.6	35.3
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	34.9	167.1	29.4
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	50.4	114.4	27.7
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	71.6	114.4	27.7
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	100.9	167.1	29.4
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	48.6	114.4	27.7
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	61.4	167.1	29.4
Nigeria	Jos Electricity Distribution Company (Jos)	2017	30.7	114.4	27.7
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	27.7	114.4	27.7
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	29.4	167.1	29.4
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	167.0	167.1	29.4
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	36.0	122.2	28.4
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	63.9	167.1	29.4
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	73.5	167.1	29.4
Uganda	Umeme	2018	126.8	167.1	29.4
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	102.9	102.9	56.3
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	56.3	102.9	56.3
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.14 Operating cost recovery (billed revenue), including subsidies

Indicator: Operating cost recovery (billed revenue), including subsidies

Definition: Total revenue plus operating subsidies, all divided by operating costs (cost of sales + other operating expenses - bad debt expense + income tax)

Operating cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	99.0	132.2	56.2
Botswana	Botswana Power Corporation (BPC)	2018	117.1	132.2	56.2
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	123.6	132.2	56.2
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	99.9	132.2	56.2
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	98.3	132.2	56.2
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	96.1	132.2	56.2
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	109.3	132.2	56.2
Chad	Société Nationale d'Electricité (SNE)	2018	106.3	132.2	56.2
Comoros	Electricité d'Anjouan (EDA)	2018	106.1	132.2	56.2
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	92.2	132.2	56.2
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	99.2	132.2	56.2
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	135.8	149.0	61.7
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	96.5	132.2	56.2
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	128.6	132.2	56.2
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	102.1	132.2	56.2
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	127.5	154.8	60.1

Operating cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	2016	102.3	149.3	59.0
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	85.8	149.3	59.0
Lesotho	Lesotho Electricity Company (LEC)	2016	122.3	149.3	59.0
Liberia	Liberia Electricity Corporation (LEC)	2018	78.8	132.2	56.2
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	78.8	132.2	56.2
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	84.6	132.2	56.2
Mali	Energie du Mali (EDM)	2018	88.2	132.2	56.2
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	122.5	132.2	56.2
Mozambique	Electricidade de Moçambique (EDM)	2018	100.0	132.2	56.2
Namibia	NamPower	2018	132.2	132.2	56.2
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	126.3	132.2	56.2
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	93.6	132.2	56.2
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	56.2	132.2	56.2
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	108.1	132.2	56.2
Seychelles	Public Utilities Corporation (PUC)	2018	116.1	132.2	56.2
South Africa	Eskom	2018	127.4	132.2	56.2
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	112.8	132.2	56.2
Togo	Electric Power Company of Togo (CEET)	2017	99.1	154.8	60.1
Zambia	Copperbelt Energy Corporation (CEC)	2018	115.6	132.2	56.2
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	78.5	132.2	56.2
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	115.6	169.1	26.8
Ghana	Volta River Authority (VRA)	2018	133.7	169.1	26.8

Operating cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	169.1	169.1	26.8
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	26.8	169.1	26.8
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	91.5	169.1	26.8
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	121.1	184.3	26.3
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	165.1	184.3	26.3
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	112.8	117.3	52.0
Ghana	Ghana Grid Company (GRIDCo)	2018	117.3	117.3	52.0
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	75.8	117.3	52.0
Nigeria	Transmission Company of Nigeria (TCN)	2017	304.5	304.5	64.6
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	52.0	117.3	52.0
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	96.0	117.3	52.0
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	109.2	136.5	67.6
Ethiopia	Ethiopian Electric Utility (EEU)	2018	99.6	136.5	67.6
Ghana	Electricity Company of Ghana (ECG)	2018	68.0	136.5	67.6
Kenya	Kenya Power and Lighting Company (KPLC)	2018	105.3	136.5	67.6
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	102.5	136.5	67.6
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	112.2	136.5	67.6
Namibia	Northern Regions Electricity Distributor (NORED)	2014	110.0	113.9	56.6
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	67.6	136.5	67.6
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	98.7	145.5	64.2
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	80.2	145.5	64.2
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	81.4	136.5	67.6

Operating cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	78.9	145.5	64.2
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	67.7	136.5	67.6
Nigeria	Jos Electricity Distribution Company (Jos)	2017	85.6	145.5	64.2
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	83.8	145.5	64.2
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	76.7	136.5	67.6
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	136.5	136.5	67.6
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	76.0	122.4	54.5
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	78.9	136.5	67.6
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	72.1	136.5	67.6
Uganda	Umeme	2018	123.6	136.5	67.6
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	140.3	140.3	128.0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	128.0	140.3	128.0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.15 Operating cost recovery (billed revenue), excluding subsidies

Indicator: Operating cost recovery (billed revenue), excluding subsidies

Definition: Total revenue divided by operating costs (cost of sales + other operating expenses - bad debt expense + income tax)

Operating cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	99.0	132.2	51.1
Botswana	Botswana Power Corporation (BPC)	2018	94.6	132.2	51.1
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	123.6	132.2	51.1
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	95.6	132.2	51.1
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	98.3	132.2	51.1
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	95.2	132.2	51.1
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	106.0	132.2	51.1
Chad	Société Nationale d'Electricité (SNE)	2018	51.1	132.2	51.1
Comoros	Electricité d'Anjouan (EDA)	2018	85.2	132.2	51.1
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	68.9	132.2	51.1
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	99.2	132.2	51.1
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	7.6	149.0	7.6
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	96.1	132.2	51.1
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	128.6	132.2	51.1
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	102.1	132.2	51.1
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	127.5	139.1	51.6
Guinea	Electricité de Guinée (EDG)	2016	60.6	135.8	58.4

Operating cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	85.8	135.8	58.4
Lesotho	Lesotho Electricity Company (LEC)	2016	122.3	135.8	58.4
Liberia	Liberia Electricity Corporation (LEC)	2018	74.5	132.2	51.1
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	56.6	132.2	51.1
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	84.6	132.2	51.1
Mali	Energie du Mali (EDM)	2018	76.9	132.2	51.1
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	122.5	132.2	51.1
Mozambique	Electricidade de Moçambique (EDM)	2018	100.0	132.2	51.1
Namibia	NamPower	2018	132.2	132.2	51.1
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	126.3	132.2	51.1
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	84.0	132.2	51.1
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	56.2	132.2	51.1
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	76.7	132.2	51.1
Seychelles	Public Utilities Corporation (PUC)	2018	116.1	132.2	51.1
South Africa	Eskom	2018	127.4	132.2	51.1
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	112.8	132.2	51.1
Togo	Electric Power Company of Togo (CEET)	2017	96.7	139.1	51.6
Zambia	Copperbelt Energy Corporation (CEC)	2018	115.6	132.2	51.1
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	78.5	132.2	51.1
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	35.0	169.1	26.8
Ghana	Volta River Authority (VRA)	2018	113.4	169.1	26.8
Kenya	Kenya Electricity Generation Company (KenGen)	2018	169.1	169.1	26.8

Operating cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	26.8	169.1	26.8
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	91.5	169.1	26.8
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	121.1	184.3	26.3
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	165.1	184.3	26.3
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	112.8	117.3	31.7
Ghana	Ghana Grid Company (GRIDCo)	2018	117.3	117.3	31.7
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	68.2	117.3	31.7
Nigeria	Transmission Company of Nigeria (TCN)	2017	304.5	304.5	30.3
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	31.7	117.3	31.7
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	90.5	117.3	31.7
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	52.0	124.3	52.0
Ethiopia	Ethiopian Electric Utility (EEU)	2018	99.6	124.3	52.0
Ghana	Electricity Company of Ghana (ECG)	2018	68.0	124.3	52.0
Kenya	Kenya Power and Lighting Company (KPLC)	2018	95.3	124.3	52.0
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	102.5	124.3	52.0
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	112.2	124.3	52.0
Namibia	Northern Regions Electricity Distributor (NORED)	2014	110.0	113.9	56.6
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	67.6	124.3	52.0
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	98.7	116.6	47.1
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	80.2	116.6	47.1
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	81.4	124.3	52.0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	78.9	116.6	47.1

Operating cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	67.7	124.3	52.0
Nigeria	Jos Electricity Distribution Company (Jos)	2017	85.6	116.6	47.1
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	83.8	116.6	47.1
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	76.7	124.3	52.0
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	82.4	124.3	52.0
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	76.0	122.4	49.6
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	74.0	124.3	52.0
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	72.1	124.3	52.0
Uganda	Umeme	2018	124.3	124.3	52.0
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	140.3	140.3	128.0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	128.0	140.3	128.0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.16 Operating and debt service cost recovery (cash collected), including subsidies

Indicator: Operating and debt service cost recovery (cash collected), including subsidies

Definition: Total revenue plus operating subsidies minus cashflow from change in net trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) minus bad debt expense plus cashflow from change in deferred revenues on prepaid sales, all divided by operating costs (cost of sales + other operating expenses - bad debt expense + income tax) plus debt service (interest expense + repayment component of debt servicing cashflows)

Operating and debt service cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	84.7	123.3	9.6
Botswana	Botswana Power Corporation (BPC)	2018	92.2	123.3	9.6
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	103.7	123.3	9.6
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	97.1	123.3	9.6
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	88.9	123.3	9.6
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	82.6	123.3	9.6
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	9.6	123.3	9.6
Chad	Société Nationale d'Electricité (SNE)	2018	83.7	123.3	9.6
Comoros	Electricité d'Anjouan (EDA)	2018	95.6	123.3	9.6
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	75.6	123.3	9.6
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	97.9	123.3	9.6
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	79.2	225.8	51.2
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	61.9	123.3	9.6
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	123.3	123.3	9.6

Operating and debt service cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	90.7	123.3	9.6
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	105.9	122.9	51.9
Guinea	Electricité de Guinée (EDG)	2016	82.0	129.2	45.4
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	82.0	129.2	45.4
Lesotho	Lesotho Electricity Company (LEC)	2016	112.6	129.2	45.4
Liberia	Liberia Electricity Corporation (LEC)	2018	56.6	123.3	9.6
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	71.8	123.3	9.6
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	74.3	123.3	9.6
Mali	Energie du Mali (EDM)	2018	79.5	123.3	9.6
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	112.8	123.3	9.6
Mozambique	Electricidade de Moçambique (EDM)	2018	57.1	123.3	9.6
Namibia	NamPower	2018	115.8	123.3	9.6
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	96.9	123.3	9.6
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	89.8	123.3	9.6
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	43.1	123.3	9.6
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	86.1	123.3	9.6
Seychelles	Public Utilities Corporation (PUC)	2018	115.3	123.3	9.6
South Africa	Eskom	2018	86.3	123.3	9.6
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	101.3	123.3	9.6
Togo	Electric Power Company of Togo (CEET)	2017	72.8	122.9	51.9
Zambia	Copperbelt Energy Corporation (CEC)	2018	115.9	123.3	9.6
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	63.4	123.3	9.6
Generation-only utilities					

Operating and debt service cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	87.5	119.7	30.7
Ghana	Volta River Authority (VRA)	2018	70.7	119.7	30.7
Kenya	Kenya Electricity Generation Company (KenGen)	2018	101.0	119.7	30.7
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	30.7	119.7	30.7
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	119.7	119.7	30.7
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	60.8	101.8	20.0
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	96.5	101.8	20.0
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	43.5	117.3	39.1
Ghana	Ghana Grid Company (GRIDCo)	2018	117.3	117.3	39.1
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	39.1	117.3	39.1
Nigeria	Transmission Company of Nigeria (TCN)	2017	74.4	98.2	52.6
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	50.7	117.3	39.1
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	92.4	117.3	39.1
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	89.2	154.8	28.9
Ethiopia	Ethiopian Electric Utility (EEU)	2018	92.2	154.8	28.9
Ghana	Electricity Company of Ghana (ECG)	2018	68.0	154.8	28.9
Kenya	Kenya Power and Lighting Company (KPLC)	2018	86.8	154.8	28.9
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	96.9	154.8	28.9
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	106.0	154.8	28.9
Namibia	Northern Regions Electricity Distributor (NORED)	2014	114.9	112.3	35.3
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	32.9	154.8	28.9
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	47.4	107.9	20.3

Operating and debt service cost recovery (cash collected), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	67.4	107.9	20.3
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	91.5	154.8	28.9
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	47.1	107.9	20.3
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	60.4	154.8	28.9
Nigeria	Jos Electricity Distribution Company (Jos)	2017	28.7	107.9	20.3
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	20.3	107.9	20.3
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	28.9	154.8	28.9
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	154.7	154.8	28.9
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	32.6	111.6	24.8
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	63.4	154.8	28.9
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	73.5	154.8	28.9
Uganda	Umeme	2018	103.9	154.8	28.9
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	23.0	56.3	23.0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	56.3	56.3	23.0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.17 Operating and debt service cost recovery (billed revenue), including subsidies

Indicator: Operating and debt service cost recovery (billed revenue), including subsidies

Definition: Total revenue plus operating subsidies, all divided by the sum of operating costs (cost of sales + other operating expenses - bad debt expense + income tax) plus Debt Service (interest expense + repayment component of debt servicing cashflows)

Operating and debt service cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	93.0	125.0	22.2
Botswana	Botswana Power Corporation (BPC)	2018	94.5	125.0	22.2
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	108.2	125.0	22.2
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	99.8	125.0	22.2
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	94.7	125.0	22.2
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	87.2	125.0	22.2
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	22.2	125.0	22.2
Chad	Société Nationale d'Electricité (SNE)	2018	106.0	125.0	22.2
Comoros	Electricité d'Anjouan (EDA)	2018	106.0	125.0	22.2
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	92.0	125.0	22.2
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	98.4	125.0	22.2
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	72.6	140.7	61.4
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	71.9	125.0	22.2
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	124.3	125.0	22.2
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	100.1	125.0	22.2
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	114.7	151.3	59.8

Operating and debt service cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	2016	102.3	145.3	58.5
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	82.0	145.3	58.5
Lesotho	Lesotho Electricity Company (LEC)	2016	121.7	145.3	58.5
Liberia	Liberia Electricity Corporation (LEC)	2018	75.8	125.0	22.2
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	77.4	125.0	22.2
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	84.0	125.0	22.2
Mali	Energie du Mali (EDM)	2018	83.4	125.0	22.2
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	112.7	125.0	22.2
Mozambique	Electricidade de Moçambique (EDM)	2018	96.6	125.0	22.2
Namibia	NamPower	2018	125.0	125.0	22.2
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	106.1	125.0	22.2
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	93.3	125.0	22.2
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	55.4	125.0	22.2
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	103.4	125.0	22.2
Seychelles	Public Utilities Corporation (PUC)	2018	115.7	125.0	22.2
South Africa	Eskom	2018	87.4	125.0	22.2
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	102.9	125.0	22.2
Togo	Electric Power Company of Togo (CEET)	2017	78.9	151.3	59.8
Zambia	Copperbelt Energy Corporation (CEC)	2018	109.3	125.0	22.2
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	66.5	125.0	22.2
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	105.9	116.8	26.8
Ghana	Volta River Authority (VRA)	2018	107.3	116.8	26.8

Operating and debt service cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	116.8	116.8	26.8
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	26.8	116.8	26.8
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	91.5	116.8	26.8
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	70.7	120.8	26.3
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	93.1	120.8	26.3
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	122.9	122.9	52.0
Ghana	Ghana Grid Company (GRIDCo)	2018	64.1	122.9	52.0
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	70.3	122.9	52.0
Nigeria	Transmission Company of Nigeria (TCN)	2017	185.0	185.0	64.6
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	52.0	122.9	52.0
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	96.0	122.9	52.0
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	108.1	126.5	63.8
Ethiopia	Ethiopian Electric Utility (EEU)	2018	96.0	126.5	63.8
Ghana	Electricity Company of Ghana (ECG)	2018	65.9	126.5	63.8
Kenya	Kenya Power and Lighting Company (KPLC)	2018	91.2	126.5	63.8
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	101.6	126.5	63.8
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	107.8	126.5	63.8
Namibia	Northern Regions Electricity Distributor (NORED)	2014	110.0	113.9	56.6
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	63.8	126.5	63.8
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	92.9	135.6	61.4
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	75.4	135.6	61.4
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	73.8	126.5	63.8

Operating and debt service cost recovery (billed revenue), including subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	76.6	135.6	61.4
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	66.5	126.5	63.8
Nigeria	Jos Electricity Distribution Company (Jos)	2017	79.8	135.6	61.4
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	61.4	135.6	61.4
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	75.5	126.5	63.8
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	126.5	126.5	63.8
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	68.9	111.8	54.1
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	78.4	126.5	63.8
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	72.1	126.5	63.8
Uganda	Umeme	2018	101.9	126.5	63.8
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	31.4	128.0	31.4
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	128.0	128.0	31.4
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.18 Operating and debt service cost recovery (billed revenue), excluding subsidies

Indicator: Operating and debt service cost recovery (billed revenue), excluding subsidies

Definition: Total revenue divided by the sum of operating costs (cost of sales + other operating expenses - bad debt expense + income tax) plus debt service (interest expense + repayment component of debt servicing cashflows)

Operating and debt service cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	93.0	125.0	21.5
Botswana	Botswana Power Corporation (BPC)	2018	76.4	125.0	21.5
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	108.2	125.0	21.5
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	95.5	125.0	21.5
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	94.7	125.0	21.5
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	86.5	125.0	21.5
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	21.5	125.0	21.5
Chad	Société Nationale d'Electricité (SNE)	2018	51.0	125.0	21.5
Comoros	Electricité d'Anjouan (EDA)	2018	85.0	125.0	21.5
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	68.7	125.0	21.5
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	98.4	125.0	21.5
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	4.6	140.7	4.6
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	71.6	125.0	21.5
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	124.3	125.0	21.5
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	100.1	125.0	21.5
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	114.7	135.9	51.6

Operating and debt service cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	2016	60.6	132.3	54.2
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	82.0	132.3	54.2
Lesotho	Lesotho Electricity Company (LEC)	2016	121.7	132.3	54.2
Liberia	Liberia Electricity Corporation (LEC)	2018	71.7	125.0	21.5
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	55.6	125.0	21.5
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	84.0	125.0	21.5
Mali	Energie du Mali (EDM)	2018	72.7	123.8	13.7
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	112.7	125.0	21.5
Mozambique	Electricidade de Moçambique (EDM)	2018	96.6	125.0	21.5
Namibia	NamPower	2018	125.0	125.0	21.5
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	106.1	125.0	21.5
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	83.7	125.0	21.5
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	55.4	125.0	21.5
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	73.4	125.0	21.5
Seychelles	Public Utilities Corporation (PUC)	2018	115.7	125.0	21.5
South Africa	Eskom	2018	87.4	125.0	21.5
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	102.9	125.0	21.5
Togo	Electric Power Company of Togo (CEET)	2017	76.9	135.9	51.6
Zambia	Copperbelt Energy Corporation (CEC)	2018	109.3	125.0	21.5
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	66.5	125.0	21.5
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	32.1	116.8	26.8
Ghana	Volta River Authority (VRA)	2018	91.0	116.8	26.8

Operating and debt service cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	116.8	116.8	26.8
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	26.8	116.8	26.8
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	91.5	116.8	26.8
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	70.7	120.8	26.3
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	93.1	120.8	26.3
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	122.9	122.9	31.7
Ghana	Ghana Grid Company (GRIDCo)	2018	64.1	122.9	31.7
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	63.2	122.9	31.7
Nigeria	Transmission Company of Nigeria (TCN)	2017	185.0	185.0	30.3
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	31.7	122.9	31.7
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	90.4	122.9	31.7
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	48.6	107.8	51.5
Ethiopia	Ethiopian Electric Utility (EEU)	2018	96.0	107.8	51.5
Ghana	Electricity Company of Ghana (ECG)	2018	69.7	107.8	51.5
Kenya	Kenya Power and Lighting Company (KPLC)	2018	79.3	107.8	51.5
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	93.5	107.8	51.5
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	107.8	107.8	51.5
Namibia	Northern Regions Electricity Distributor (NORED)	2014	106.9	113.9	56.6
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	55.5	107.8	51.5
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	85.4	108.8	46.1
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	68.9	108.8	46.1
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	47.6	107.8	51.5

Operating and debt service cost recovery (billed revenue), excluding subsidies

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	55.6	108.8	46.1
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	53.2	107.8	51.5
Nigeria	Jos Electricity Distribution Company (Jos)	2017	59.4	108.8	46.1
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	46.9	108.8	46.1
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	48.6	107.8	51.5
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	52.6	107.8	51.5
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	59.1	111.8	48.6
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	72.6	107.8	51.5
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	72.1	107.8	51.5
Uganda	Umeme	2018	101.4	107.8	51.5
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	31.4	128.0	31.4
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	128.0	128.0	31.4
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.19 Collection rate

Indicator: Collection rate

Definition: Total revenue minus bad debt expense minus cashflow from change in gross trade accounts receivable (trade and other receivables in year T, minus trade and other receivables in year T-1) plus cashflow from change in deferred revenues on prepaid sales, all divided by total revenue

Collection rate

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	91.1	106.1	41.7
Botswana	Botswana Power Corporation (BPC)	2018	97.0	106.1	41.7
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	95.8	106.1	41.7
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	97.1	106.1	41.7
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	93.9	106.1	41.7
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	94.7	106.1	41.7
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	41.7	106.1	41.7
Chad	Société Nationale d'Electricité (SNE)	2018	56.2	106.1	41.7
Comoros	Electricité d'Anjouan (EDA)	2018	87.8	106.1	41.7
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	76.0	106.1	41.7
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	99.6	106.1	41.7
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	119.4	160.6	38.1
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	86.1	106.1	41.7
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	99.2	106.1	41.7
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	90.6	106.1	41.7

Collection rate

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	92.4	115.7	56.5
Guinea	Electricité de Guinée (EDG)	2016	66.6	106.1	41.7
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	100.0	117.6	44.4
Lesotho	Lesotho Electricity Company (LEC)	2016	92.5	117.6	44.4
Liberia	Liberia Electricity Corporation (LEC)	2018	73.2	106.1	41.7
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	89.9	106.1	41.7
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	88.4	106.1	41.7
Mali	Energie du Mali (EDM)	2018	94.6	106.1	41.7
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	100.0	106.1	41.7
Mozambique	Electricidade de Moçambique (EDM)	2018	59.1	106.1	41.7
Namibia	NamPower	2018	92.6	106.1	41.7
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	91.3	106.1	41.7
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	95.9	106.1	41.7
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	77.8	106.1	41.7
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	76.4	106.1	41.7
Seychelles	Public Utilities Corporation (PUC)	2018	99.6	106.1	41.7
South Africa	Eskom	2018	92.8	106.1	41.7
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	98.4	106.1	41.7
Togo	Electric Power Company of Togo (CEET)	2017	92.1	115.7	56.5
Zambia	Copperbelt Energy Corporation (CEC)	2018	106.0	106.1	41.7
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	95.4	106.1	41.7
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	63.4	137.0	38.3

Collection rate

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Ethiopia	Ethiopian Electric Utility (EEU)	2018	96.0	137.0	38.3
Ghana	Electricity Company of Ghana (ECG)	2018	103.2	137.0	38.3
Kenya	Kenya Power and Lighting Company (KPLC)	2018	94.8	137.0	38.3
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	95.3	137.0	38.3
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	98.3	137.0	38.3
Namibia	Northern Regions Electricity Distributor (NORED)	2014	104.5	206.7	47.0
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	51.6	137.0	38.3
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	51.0	108.4	33.0
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	89.3	108.4	33.0
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	124.0	137.0	38.3
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	61.5	108.4	33.0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	90.8	137.0	38.3
Nigeria	Jos Electricity Distribution Company (Jos)	2017	35.9	108.4	33.0
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	33.0	108.4	33.0
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	38.3	137.0	38.3
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	137.0	137.0	38.3
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	47.3	108.2	30.3
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	79.6	137.0	38.3
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	101.8	137.0	38.3
Uganda	Umeme	2018	102.0	137.0	38.3
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.20 Age of accounts receivable, in days

Indicator: Receivable days

Definition: Gross trade receivables divided by total revenue

Age of accounts receivable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	281.0	2,129.7	27.6
Botswana	Botswana Power Corporation (BPC)	2018	35.7	2,129.7	27.6
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	122.6	2,129.7	27.6
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	348.9	2,129.7	27.6
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	146.8	2,129.7	27.6
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	233.7	2,129.7	27.6
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	2,129.7	2,129.7	27.6
Chad	Société Nationale d'Electricité (SNE)	2018	949.6	2,129.7	27.6
Comoros	Electricité d'Anjouan (EDA)	2018	132.5	2,129.7	27.6
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	247.0	2,129.7	27.6
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	193.4	1,763.8	32.3
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	406.9	2,129.7	27.6
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	27.6	2,129.7	27.6
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	262.5	2,129.7	27.6
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	148.9	1,885.7	27.1
Guinea	Electricité de Guinée (EDG)	2018	572.6	2,129.7	27.6

Age of accounts receivable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	49.6	1,894.1	31.8
Lesotho	Lesotho Electricity Company (LEC)	2016	49.3	1,894.1	31.8
Liberia	Liberia Electricity Corporation (LEC)	2018	190.3	2,129.7	27.6
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	195.6	2,129.7	27.6
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	103.6	2,129.7	27.6
Mali	Energie du Mali (EDM)	2018	177.5	2,129.7	27.6
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	54.9	2,129.7	27.6
Mozambique	Electricidade de Moçambique (EDM)	2018	241.1	2,129.7	27.6
Namibia	NamPower	2018	93.8	2,129.7	27.6
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	134.7	2,129.7	27.6
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	116.3	2,129.7	27.6
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	336.7	2,129.7	27.6
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	474.5	2,129.7	27.6
Seychelles	Public Utilities Corporation (PUC)	2018	36.8	2,129.7	27.6
South Africa	Eskom	2018	108.1	2,129.7	27.6
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	104.9	2,129.7	27.6
Togo	Electric Power Company of Togo (CEET)	2017	241.3	1,885.7	27.1
Zambia	Copperbelt Energy Corporation (CEC)	2018	39.7	2,129.7	27.6
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	244.7	2,129.7	27.6
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	699.8	699.8	51.9
Ghana	Volta River Authority (VRA)	2018	499.3	699.8	51.9
Kenya	Kenya Electricity Generation Company (KenGen)	2018	176.4	699.8	51.9

Age of accounts receivable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	51.9	699.8	51.9
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	140.0	699.8	51.9
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	87.4	649.8	87.4
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	649.8	649.8	87.4
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	776.4	776.4	84.8
Ghana	Ghana Grid Company (GRIDCo)	2018	773.8	776.4	84.8
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	392.0	776.4	84.8
Nigeria	Transmission Company of Nigeria (TCN)	2017	715.5	715.5	79.9
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	84.8	776.4	84.8
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	126.5	776.4	84.8
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	601.4	828.8	8.2
Ethiopia	Ethiopian Electric Utility (EEU)	2018	8.2	828.8	8.2
Ghana	Electricity Company of Ghana (ECG)	2018	129.2	828.8	8.2
Kenya	Kenya Power and Lighting Company (KPLC)	2018	64.4	828.8	8.2
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	42.9	828.8	8.2
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	51.7	828.8	8.2
Namibia	Northern Regions Electricity Distributor (NORED)	2014	37.0	344.6	30.6
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	187.8	828.8	8.2
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	474.0	722.5	38.9
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	99.0	722.5	38.9
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	716.9	828.8	8.2
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	412.6	722.5	38.9

Age of accounts receivable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	383.8	828.8	8.2
Nigeria	Jos Electricity Distribution Company (Jos)	2017	722.5	722.5	38.9
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	704.7	722.5	38.9
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	670.2	828.8	8.2
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	828.8	828.8	8.2
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	303.6	571.7	17.7
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	217.8	828.8	8.2
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	14.7	828.8	8.2
Uganda	Umeme	2018	52.7	828.8	8.2
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	166.7	490.9	166.7
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	490.9	490.9	166.7
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.21 Age of accounts payable, in days

Indicator: Payable days

Definition: Trade payables divided by cost of sales times 365

Age of accounts payable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	142.5	675.8	37.3
Botswana	Botswana Power Corporation (BPC)	2018	55.7	675.8	37.3
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	84.6	675.8	37.3
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	145.4	675.8	37.3
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	42.5	675.8	37.3
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	244.5	675.8	37.3
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	177.2	675.8	37.3
Chad	Société Nationale d'Electricité (SNE)	2018	462.5	675.8	37.3
Comoros	Electricité d'Anjouan (EDA)	2018	660.5	675.8	37.3
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	285.4	675.8	37.3
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	361.9	675.8	37.3
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	220.7	1,245.4	18.1
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2013	1,036.4	22,631.7	16.5
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	66.2	675.8	37.3
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	255.6	675.8	37.3
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	214.9	1,128.1	31.0
Guinea	Electricité de Guinée (EDG)	2018	313.6	675.8	37.3

Age of accounts payable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	67.9	1,089.3	7.7
Lesotho	Lesotho Electricity Company (LEC)	2016	7.7	1,089.3	7.7
Liberia	Liberia Electricity Corporation (LEC)	2018	164.0	675.8	37.3
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	409.2	675.8	37.3
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	273.6	675.8	37.3
Mali	Energie du Mali (EDM)	2018	612.0	675.8	37.3
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	52.1	675.8	37.3
Mozambique	Electricidade de Moçambique (EDM)	2018	368.7	675.8	37.3
Namibia	NamPower	2018	101.5	675.8	37.3
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	163.4	675.8	37.3
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	151.1	675.8	37.3
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	148.2	675.8	37.3
Seychelles	Public Utilities Corporation (PUC)	2018	37.3	675.8	37.3
South Africa	Eskom	2018	86.7	675.8	37.3
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	332.9	675.8	37.3
Togo	Electric Power Company of Togo (CEET)	2017	157.9	1,128.1	31.0
Zambia	Copperbelt Energy Corporation (CEC)	2018	64.1	675.8	37.3
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	675.8	675.8	37.3
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	1,363.2	1,363.2	90.2
Ghana	Volta River Authority (VRA)	2018	809.8	1,363.2	90.2
Kenya	Kenya Electricity Generation Company (KenGen)	2018	392.3	1,363.2	90.2

Age of accounts payable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	90.2	1,363.2	90.2
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	214.6	1,363.2	90.2
Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	38.3	808.4	29.5
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	709.4	2,787.9	109.4
Ghana	Ghana Grid Company (GRIDCo)	2018	415.5	2,787.9	109.4
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	2,787.9	2,787.9	109.4
Nigeria	Transmission Company of Nigeria (TCN)	2017	939.1	2,361.9	87.5
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	109.4	2,787.9	109.4
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	110.2	2,787.9	109.4
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	709.1	1,098.0	6.2
Ethiopia	Ethiopian Electric Utility (EEU)	2018	6.2	1,098.0	6.2
Ghana	Electricity Company of Ghana (ECG)	2018	291.8	1,098.0	6.2
Kenya	Kenya Power and Lighting Company (KPLC)	2018	186.2	1,098.0	6.2
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	83.0	1,098.0	6.2
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	43.9	1,098.0	6.2
Namibia	Northern Regions Electricity Distributor (NORED)	2014	18.3	329.3	0.07
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	940.1	1,098.0	6.2
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	595.9	912.2	27.9
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	401.6	912.2	27.9
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	1,098.0	1,098.0	6.2
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	599.0	912.2	27.9

Age of accounts payable

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	617.4	1,098.0	6.2
Nigeria	Jos Electricity Distribution Company (Jos)	2017	867.7	912.2	27.9
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	912.2	912.2	27.9
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	897.0	1,098.0	6.2
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	225.6	1,098.0	6.2
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	544.6	633.6	8.4
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	325.7	1,098.0	6.2
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	32.9	1,098.0	6.2
Uganda	Umeme	2018	146.7	1,098.0	6.2
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	1,730.6	1,730.6	5.6
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	5.6	1,730.6	5.6
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.22 Debt service coverage ratio

Indicator: Debt service coverage ratio

Definition: Pre-financing cashflows (cashflow from operations + cashflow from investment activities) divided by debt service (interest component of debt servicing cashflows + repayment component of debt servicing cashflows)

Debt service coverage ratio

Country	Utility	Year	Value	Max value in group	Min value in group
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	(1.7)	17.4	(76.9)
Botswana	Botswana Power Corporation (BPC)	2018	1.0	17.4	(76.9)
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	(1.0)	17.4	(76.9)
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	(1.5)	17.4	(76.9)
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	(0.4)	17.4	(76.9)
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	(0.1)	17.4	(76.9)
Chad	Société Nationale d'Electricité (SNE)	2018	17.4	17.4	(76.9)
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	(8.9)	17.4	(76.9)
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	(1.0)	84.4	(54.2)
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	(0.2)	17.4	(76.9)
Equatorial Guiena	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	7.4	17.4	(76.9)
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	2.5	17.4	(76.9)
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	(1.8)	5.0	(74.8)

Debt service coverage ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Guinea	Electricité de Guinée (EDG)	2015	(1.5)	84.4	(54.2)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	(3.1)	3.6	(75.5)
Lesotho	Lesotho Electricity Company (LEC)	2016	(75.5)	3.6	(75.5)
Liberia	Liberia Electricity Corporation (LEC)	2018	(45.7)	17.4	(76.9)
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	(0.1)	17.4	(76.9)
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	(73.1)	17.4	(76.9)
Mali	Energie du Mali (EDM)	2018	1.5	17.4	(76.9)
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	1.2	17.4	(76.9)
Mozambique	Electricidade de Moçambique (EDM)	2018	(72.2)	17.4	(76.9)
Namibia	NamPower	2018	2.2	17.4	(76.9)
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	0.6	17.4	(76.9)
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	(26.0)	17.4	(76.9)
São Tomé and Prinicpe	Empresa de Água e Electricidade (EMAE)	2016	3.6	3.6	(75.5)
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	(16.7)	17.4	(76.9)
Seychelles	Public Utilities Corporation (PUC)	2018	(76.9)	17.4	(76.9)
South Africa	Eskom	2018	(0.1)	17.4	(76.9)
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	(2.2)	17.4	(76.9)
Togo	Electric Power Company of Togo (CEET)	2017	(0.5)	5.0	(74.8)
Zambia	Copperbelt Energy Corporation (CEC)	2018	3.1	17.4	(76.9)
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	0.0	17.4	(76.9)
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	(0.2)	0.2	(0.3)
Ghana	Volta River Authority (VRA)	2018	(0.3)	0.2	(0.3)

Debt service coverage ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Kenya	Kenya Electricity Generation Company (KenGen)	2018	0.2	0.2	(0.3)
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	(265.2)	0.2	(265.2)
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	(0.3)	0.2	(265.2)
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	(0.2)	(0.2)	(939.4)
Ghana	Ghana Grid Company (GRIDCo)	2018	(0.3)	(0.2)	(939.4)
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	(129.5)	(0.2)	(939.4)
Nigeria	Transmission Company of Nigeria (TCN)	2017	(1.7)	1.1	(451.6)
Sudan	Sudanese Electricity Transmission Company (SETC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	(939.4)	(0.2)	(939.4)
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	(14.2)	11.1	(14.2)
Ethiopia	Ethiopian Electric Utility (EEU)	2018	6.3	11.1	(14.2)
Ghana	Electricity Company of Ghana (ECG)	2018	(3.5)	11.1	(14.2)
Kenya	Kenya Power and Lighting Company (KPLC)	2018	0.5	11.1	(14.2)
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	4.1	11.1	(14.2)
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	(0.7)	11.1	(14.2)
Namibia	Northern Regions Electricity Distributor (NORED)	2014	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	(3.6)	11.1	(14.2)
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	0.2	9.8	(29.8)
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	(1.8)	9.8	(29.8)
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	(0.2)	11.1	(14.2)

Debt service coverage ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	0.9	9.8	(29.8)
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	11.1	11.1	(14.2)
Nigeria	Jos Electricity Distribution Company (Jos)	2017	0.8	9.8	(29.8)
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	1.5	11.1	(14.2)
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	0.6	11.1	(14.2)
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	No data	No data	No data
Sudan	Sudanese Electricity Distribution Company (SEDC)	N/A	No data	No data	No data
Uganda	Umeme	2018	0.8	11.1	(14.2)
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	(1.4)	(1.4)	(1.4)
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.23 Debt-to-assets ratio

Indicator: Debt-to-assets ratio

Definition: Debt (current borrowings + non-current borrowings + bank overdraft) divided by total assets

Debt-to-assets ratio

Country	Utility	Year	Value	Max value in group	Min value in group
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	0.30	1.03	0.00
Botswana	Botswana Power Corporation (BPC)	2018	0.24	1.03	0.00
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	0.37	1.03	0.00
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	0.00	1.03	0.00
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	1.03	1.03	0.00
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	0.14	1.03	0.00
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	0.35	1.03	0.00
Chad	Société Nationale d'Electricité (SNE)	2018	0.07	1.03	0.00
Comoros	Electricité d'Anjouan (EDA)	2018	0.01	1.03	0.00
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	0.02	1.03	0.00
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	0.29	1.03	0.00
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	0.58	2.89	0.00
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	0.20	1.03	0.00
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	0.06	1.03	0.00
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	0.11	1.03	0.00
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	1.33	1.33	0.00
Guinea	Electricité de Guinée (EDG)	2018	0.13	1.03	0.00

Debt-to-assets ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	3.14	3.14	0.00
Lesotho	Lesotho Electricity Company (LEC)	2016	0.02	3.14	0.00
Liberia	Liberia Electricity Corporation (LEC)	2018	0.12	1.03	0.00
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	0.07	1.03	0.00
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	0.16	1.03	0.00
Mali	Energie du Mali (EDM)	2018	0.47	1.03	0.00
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	0.11	1.03	0.00
Mozambique	Electricidade de Moçambique (EDM)	2018	0.01	1.03	0.00
Namibia	NamPower	2018	0.06	1.03	0.00
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	0.38	1.03	0.00
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	0.06	1.03	0.00
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	0.97	1.03	0.00
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	0.38	1.03	0.00
Seychelles	Public Utilities Corporation (PUC)	2018	0.15	1.03	0.00
South Africa	Eskom	2018	0.58	1.03	0.00
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	0.18	1.03	0.00
Togo	Electric Power Company of Togo (CEET)	2017	0.44	1.33	0.00
Zambia	Copperbelt Energy Corporation (CEC)	2018	0.09	1.03	0.00
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	0.25	1.03	0.00
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	0.004	0.35	0.00
Ghana	Volta River Authority (VRA)	2018	0.19	0.35	0.00
Kenya	Kenya Electricity Generation Company (KenGen)	2018	0.35	0.35	0.00

Debt-to-assets ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	0.00	0.35	0.00
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	0.01	0.35	0.00
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	0.82	0.82	0.00
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	0.29	0.82	0.00
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	0.02	0.37	0.02
Ghana	Ghana Grid Company (GRIDCo)	2018	0.32	0.37	0.02
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	0.04	0.37	0.02
Nigeria	Transmission Company of Nigeria (TCN)	2017	0.14	0.35	0.02
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	0.09	0.37	0.02
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	0.37	0.37	0.02
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	0.01	0.62	0.00
Ethiopia	Ethiopian Electric Utility (EEU)	2018	0.06	0.62	0.00
Ghana	Electricity Company of Ghana (ECG)	2018	0.09	0.62	0.00
Kenya	Kenya Power and Lighting Company (KPLC)	2018	0.37	0.62	0.00
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	0.16	0.62	0.00
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	0.13	0.62	0.00
Namibia	Northern Regions Electricity Distributor (NORED)	2014	0.00	0.42	0.00
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	0.14	0.62	0.00
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	0.07	0.49	0.00
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	0.08	0.49	0.00
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	0.25	0.62	0.00
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	0.17	0.49	0.00

Debt-to-assets ratio

Country	Utility	Year	Value	Max value in group	Min value in group
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	0.05	0.62	0.00
Nigeria	Jos Electricity Distribution Company (Jos)	2017	0.10	0.49	0.00
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	0.00	0.49	0.00
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	0.06	0.62	0.00
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	0.22	0.62	0.00
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	0.00	0.46	0.00
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	0.00	0.62	0.00
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	0.62	0.62	0.00
Uganda	Umeme	2018	0.21	0.62	0.00
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	0.93	0.93	0.93
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.24 Implied cost of debt

Indicator: Implied cost of debt

Definition: Interest expense divided by debt (current borrowings + non-current borrowings + bank overdraft)

Implied cost of debt

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	2.9	45.1	0.4
Botswana	Botswana Power Corporation (BPC)	2018	5.1	45.1	0.4
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	2.5	45.1	0.4
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	1.5	45.1	0.4
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	12.7	45.1	0.4
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	1.0	45.1	0.4
Chad	Société Nationale d'Electricité (SNE)	2018	1.8	45.1	0.4
Comoros	Electricité d'Anjouan (EDA)	2018	10.8	45.1	0.4
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	3.6	45.1	0.4
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	0.9	45.1	0.4
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	6.6	20.3	0.2
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	4.3	45.1	0.4
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	12.7	45.1	0.4
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	18.4	45.1	0.4
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	2.6	21.2	0.2
Guinea	Electricité de Guinée (EDG)	2018	1.6	45.1	0.4

			Implied cost of debt		
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	4.3	16.9	0.00004
Lesotho	Lesotho Electricity Company (LEC)	2016	2.9	16.9	0.00004
Liberia	Liberia Electricity Corporation (LEC)	2018	2.2	45.1	0.4
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	19.6	45.1	0.4
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	0.9	45.1	0.4
Mali	Energie du Mali (EDM)	2018	6.0	45.1	0.4
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	1.9	45.1	0.4
Mozambique	Electricidade de Moçambique (EDM)	2018	45.0	45.1	0.4
Namibia	NamPower	2018	10.6	45.1	0.4
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	3.7	45.1	0.4
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	2.3	45.1	0.4
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	0.4	45.1	0.4
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	2.8	45.1	0.4
Seychelles	Public Utilities Corporation (PUC)	2018	0.8	45.1	0.4
South Africa	Eskom	2018	6.9	45.1	0.4
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	3.2	45.1	0.4
Togo	Electric Power Company of Togo (CEET)	2017	2.6	21.2	0.2
Zambia	Copperbelt Energy Corporation (CEC)	2018	11.9	45.1	0.4
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	3.4	45.1	0.4
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	77.4	77.4	2.3
Ghana	Volta River Authority (VRA)	2018	14.0	77.4	2.3
Kenya	Kenya Electricity Generation Company (KenGen)	2018	2.3	77.4	2.3
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data

Implied cost of debt

Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	6.7	29.9	2.5
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	18.4	18.4	0.1
Ghana	Ghana Grid Company (GRIDCo)	2018	1.1	18.4	0.1
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	1.0	18.4	0.1
Nigeria	Transmission Company of Nigeria (TCN)	2017	20.2	22.8	0.03
Sudan	Sudanese Electricity Transmission Company (SETC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	0.1	18.4	0.1
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	32.5	32.5	6.2
Ethiopia	Ethiopian Electric Utility (EEU)	2018	8.5	32.5	6.2
Ghana	Electricity Company of Ghana (ECG)	2018	13.7	32.5	6.2
Kenya	Kenya Power and Lighting Company (KPLC)	2018	6.2	32.5	6.2
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	15.9	32.5	6.2
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	12.7	32.5	6.2
Namibia	Northern Regions Electricity Distributor (NORED)	N/A	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	16.8	32.5	6.2
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	16.0	25.1	4.5
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	17.9	25.1	4.5
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	23.8	32.5	6.2
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	10.6	25.1	4.5
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	9.6	32.5	6.2
Nigeria	Jos Electricity Distribution Company (Jos)	2017	23.4	25.1	4.5
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	N/A	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	13.9	32.5	6.2

Implied cost of debt

Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	19.8	32.5	6.2
Nigeria	Yola Electricity Distribution Company (YEDC)	N/A	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Distribution Company (SEDC)	N/A	No data	No data	No data
Uganda	Umeme	2018	11.3	32.5	6.2
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	2.4	2.4	2.4
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.25 Net profit margin

Indicator: Net profit margin

Definition: Net profit after tax divided by total revenue

Net profit margin					
Country	**Utility**	**Year**	**Value (%)**	**Max value in group (%)**	**Min value in group (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	(9.6)	47.1	(235.7)
Botswana	Botswana Power Corporation (BPC)	2018	6.0	47.1	(235.7)
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	4.9	47.1	(235.7)
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	(3.2)	47.1	(235.7)
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	(24.0)	47.1	(235.7)
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	3.7	47.1	(235.7)
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	(235.7)	47.1	(235.7)
Chad	Société Nationale d'Electricité (SNE)	2018	(2.8)	47.1	(235.7)
Comoros	Electricité d'Anjouan (EDA)	2018	5.1	47.1	(235.7)
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	(38.7)	47.1	(235.7)
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	0.6	47.1	(235.7)
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2015	0.0	23.5	(137.3)
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	0.2	47.1	(235.7)
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	25.8	47.1	(235.7)
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	2.0	47.1	(235.7)
Gambia	Gambia Water & Electricity Company (NAWEC)	2017	0.7	28.9	(67.4)
Guinea	Electricité de Guinée (EDG)	2018	47.1	47.1	(235.7)

Net profit margin

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2016	(23.2)	22.1	(121.6)
Lesotho	Lesotho Electricity Company (LEC)	2016	10.0	22.1	(121.6)
Liberia	Liberia Electricity Corporation (LEC)	2018	(9.9)	47.1	(235.7)
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	(39.1)	47.1	(235.7)
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	(14.4)	47.1	(235.7)
Mali	Energie du Mali (EDM)	2018	(34.6)	47.1	(235.7)
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	12.8	47.1	(235.7)
Mozambique	Electricidade de Moçambique (EDM)	2018	(11.1)	47.1	(235.7)
Namibia	NamPower	2018	18.6	47.1	(235.7)
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	5.3	47.1	(235.7)
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	(10.8)	47.1	(235.7)
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	(87.0)	47.1	(235.7)
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	3.9	47.1	(235.7)
Seychelles	Public Utilities Corporation (PUC)	2018	8.6	47.1	(235.7)
South Africa	Eskom	2018	(11.5)	47.1	(235.7)
Tanzania	Tanzania Electric Supply Company (TANESCO)	2018	(7.8)	47.1	(235.7)
Togo	Electric Power Company of Togo (CEET)	2017	0.4	28.9	(67.4)
Zambia	Copperbelt Energy Corporation (CEC)	2018	13.3	47.1	(235.7)
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	16.4	47.1	(235.7)
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	25.7	25.7	(273.0)
Ghana	Volta River Authority (VRA)	2018	(7.3)	25.7	(273.0)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	17.4	25.7	(273.0)

Net profit margin

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2018	(273.0)	25.7	(273.0)
Sudan	Sudanese Thermal Power Generating Company (STPGC)	2018	(7.9)	25.7	(273.0)
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	(94.2)	20.7	(281.0)
Zimbabwe	Zimbabwe Power Company (ZPC)	2017	(3.2)	20.7	(281.0)
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	1.7	21.7	(151.2)
Ghana	Ghana Grid Company (GRIDCo)	2018	(23.3)	21.7	(151.2)
Kenya	Kenya Electricity Transmission Co. (KETRACO)	2018	21.7	21.7	(151.2)
Nigeria	Transmission Company of Nigeria (TCN)	2017	123.0	123.0	(116.6)
Sudan	Sudanese Electricity Transmission Company (SETC)	2018	(151.2)	21.7	(151.2)
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	(6.9)	21.7	(151.2)
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	1.9	9.7	(110.4)
Ethiopia	Ethiopian Electric Utility (EEU)	2018	(16.0)	9.7	(110.4)
Ghana	Electricity Company of Ghana (ECG)	2018	(38.5)	9.7	(110.4)
Kenya	Kenya Power and Lighting Company (KPLC)	2018	1.5	9.7	(110.4)
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	(1.8)	9.7	(110.4)
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2018	6.7	9.7	(110.4)
Namibia	Northern Regions Electricity Distributor (NORED)	2014	8.8	8.8	(63.0)
Nigeria	Abuja Electricity Distribution Company (AEDC)	2018	(104.3)	9.7	(110.4)
Nigeria	Benin Electricity Distribution Company (BEDC)	2017	(13.9)	10.7	(121.4)
Nigeria	Eko Electricity Distribution Company (EKEDC)	2017	(57.2)	10.7	(121.4)
Nigeria	Enugu Electricity Distribution Company (EEDC)	2018	(104.4)	9.7	(110.4)
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	2017	(83.3)	10.7	(121.4)

Net profit margin

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	2018	(101.1)	9.7	(110.4)
Nigeria	Jos Electricity Distribution Company (Jos)	2017	(69.3)	10.7	(121.4)
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	2017	(117.8)	10.7	(121.4)
Nigeria	Kano Electricity Distribution Company (KEDCO)	2018	(110.4)	9.7	(110.4)
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	2018	(29.9)	9.7	(110.4)
Nigeria	Yola Electricity Distribution Company (YEDC)	2016	(69.3)	10.2	(101.8)
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	(28.9)	9.7	(110.4)
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	(26.8)	9.7	(110.4)
Uganda	Umeme	2018	9.7	9.7	(110.4)
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	(385.0)	21.0	(385.0)
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	2018	21.0	21.0	(385.0)
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

A.3.2 Operational performance Indicators

Table A.26 Availability of solid fuel generators

Indicator: Availability of solid fuel generators

Definition: Hours the solid fuel generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)

Availability of solid fuel generators

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	N/A	No data	No data	No data
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	N/A	No data	No data	No data
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	N/A	No data	No data	No data
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data

Availability of solid fuel generators

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	29.8	29.8	29.8
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	N/A	No data	No data	No data

Availability of solid fuel generators

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Ghana	Volta River Authority (VRA)	N/A	No data	No data	No data
Kenya	Kenya Electricity Generation Company (KenGen)	N/A	No data	No data	No data
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	N/A	No data	No data	No data
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data

Table A.27 Reported availability of liquid fuel generation plants

Indicator: Reported availability of liquid fuel generation plants

Definition: Hours the liquid fuel generating equipment is available (gross of resource constraints) divided by the number of hours in periods over which availability is being evaluated (as reported by the utility)

Reported availability of liquid fuel generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2017	80.3	98.1	40.0
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	67.0	94.2	43.0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	85.8	94.2	43.0
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	85.6	94.2	43.0
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	N/A	No data	No data	No data
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	43.0	94.2	43.0
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported availability of liquid fuel generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	2015	62.5	93.0	41.0
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	66.0	94.2	43.0
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2016	76.1	95.3	43.0
Mauritius	Central Electricity Board (CEB)	2018	93.0	94.2	43.0
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	81.0	94.2	43.0
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	94.2	94.2	43.0
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	88.9	94.2	43.0
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	80.0	80.0	68.7
Ghana	Volta River Authority (VRA)	2018	68.7	80.0	68.7

Reported availability of liquid fuel generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	79.9	80.0	68.7
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2017	17.2	17.2	17.2
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data

Table A.28 Reported availability of natural gas generation plants

Indicator: Reported availability of natural gas generation plants

Definition: Hours the natural gas generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)

Reported availability of natural gas generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	N/A	No data	No data	No data
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	N/A	No data	No data	No data
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	91.5	91.5	47.0
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported availability of natural gas generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	47.0	91.5	47.0
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	99.0	99.0	71.0
Ghana	Volta River Authority (VRA)	2018	71.0	99.0	71.0

Reported availability of natural gas generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	86.0	99.0	71.0
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	N/A	No data	No data	No data
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data

Table A.29 Reported availability of hydropower generation plants

Indicator: Reported availability of hydropower generation plants

Definition: Hours the hydropower generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)

Reported availability of hydropower generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2017	100.0	100.0	44.0
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	96.6	96.6	59.0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	92.3	96.6	59.0
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	83.1	96.6	59.0
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	59.0	96.6	59.0
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported availability of hydropower generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	65.0	96.6	59.0
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	2018	91.7	96.6	59.0
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	66.2	96.6	59.0
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	99.0	99.0	84.2
Ghana	Volta River Authority (VRA)	2018	84.2	99.0	84.2

Reported availability of hydropower generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	93.9	99.0	84.2
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	2017	95.6	96.5	84.0
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	2017	96.5	96.5	84.0
Zimbabwe	Zimbabwe Power Company (ZPC)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2017	82.0	82.0	82.0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data

Table A.30 Reported availability of non-hydro renewable energy generation plants

Indicator: Reported availability of non-hydro renewable energy generation plants

Definition: Hours the non-hydro renewable generating equipment is available (gross of resource constraints) divided by number of hours in periods over which availability is being evaluated (as reported by the utility)

Reported availability of non-hydro renewable energy generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2017	100.0	100.0	18.8
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	20.8	100.0	20.8
Cameroon	Eneo Cameroun S.A. (Eneo)	N/A	No data	No data	No data
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	N/A	No data	No data	No data
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported availability of non-hydro renewable energy generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	85.0	100.0	20.8
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2016	98.6	100.0	22.5
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	100.0	100.0	20.8
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	2018	100.0	100.0	91.5
Ghana	Volta River Authority (VRA)	N/A	No data	No data	No data

Reported availability of non-hydro renewable energy generation plants

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Electricity Generation Company (KenGen)	2018	91.5	100.0	91.5
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	N/A	No data	No data	No data
Sudan	Sudanese Thermal Power Generating Company (STPGC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Generation Company (UEGCL)	N/A	No data	No data	No data
Zimbabwe	Zimbabwe Power Company (ZPC)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	70.0	70.0	70.0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data

Table A.31 Reported System Average Interruption Duration Index (transmission)

Indicator: Reported System Average Interruption Duration Index (transmission)

Definition: Sum of (number of customers affected by an outage times the duration of the outage) divided by total number of customers connected (as reported by the utility)

Reported System Average Interruption Duration Index (transmission)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	N/A	No data	No data	No data
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	45.94	45.94	0.01
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	N/A	No data	No data	No data
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported System Average Interruption Duration Index (transmission)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	2018	0.01	45.94	0.01
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	N/A	No data	No data	No data
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	8.05	8.05	8.05
Ghana	Ghana Grid Company (GRIDCo)	2017	25.04	25.04	4.08

Reported System Average Interruption Duration Index (transmission)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
Kenya	Kenya Electricity Transmission Co. (KETRACO)	N/A	No data	No data	No data
Nigeria	Transmission Company of Nigeria (TCN)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Transmission Company (SETC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Transmission Company (UETCL)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	3.26	3.26	3.26
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.32 Reported System Average Interruption Frequency Index (transmission)

Indicator: Reported System Average Interruption Frequency Index (transmission)

Definition: Sum of number of customers affected by an outage divided by total number of customers connected (as reported by the utility)

Reported System Average Interruption Frequency Index (transmission)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	N/A	No data	No data	No data
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	22.19	22.19	0.18
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	N/A	No data	No data	No data
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported System Average Interruption Frequency Index (transmission)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	N/A	No data	No data	No data
Namibia	NamPower	2018	0.18	22.19	0.18
Niger	Société Nigérienne d'Electricité (NIGELEC)	N/A	No data	No data	No data
Rwanda	Energy Utility Corporation Limited (EUCL)	N/A	No data	No data	No data
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	N/A	No data	No data	No data
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	N/A	No data	No data	No data
Tanzania	Tanzania Electric Supply Company (TANESCO)	N/A	No data	No data	No data
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	3.00	3.00	3.00
Ghana	Ghana Grid Company (GRIDCo)	N/A	No data	No data	No data

Reported System Average Interruption Frequency Index (transmission)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
Kenya	Kenya Electricity Transmission Co. (KETRACO)	N/A	No data	No data	No data
Nigeria	Transmission Company of Nigeria (TCN)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Transmission Company (SETC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Transmission Company (UETCL)	N/A	No data	No data	No data
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	2018	0.31	0.31	0.31
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	N/A	No data	No data	No data

Table A.33 Reported System Average Interruption Duration Index (distribution)

Indicator: Reported System Average Interruption Duration Index (distribution)

Definition: Sum of (number of customers affected by an outage times the duration of the outage) divided by total number of customers connected (as reported by the utility)

Reported System Average Interruption Duration Index (distribution)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	59.00	238.30	0.40
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2016	660.00	660.00	1.15
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	53.00	238.30	0.40
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	97.65	238.30	0.40
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	0.92	238.30	0.40
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2017	23.83	323.00	0.99
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	2015	900.00	900.00	1.86
Eswatini	Eswatini Electricity Company (EEC)	2018	49.44	238.30	0.40
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported System Average Interruption Duration Index (distribution)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
Guinea	Electricité de Guinée (EDG)	2018	238.30	238.30	0.40
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	2017	47.60	323.00	0.99
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	2017	33.00	323.00	0.99
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2018	16.00	238.30	0.40
Mauritius	Central Electricity Board (CEB)	2018	3.40	238.30	0.40
Mozambique	Electricidade de Moçambique (EDM)	2014	0.04	290.00	0.04
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	165.00	238.30	0.40
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	30.50	238.30	0.40
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	17.38	238.30	0.40
Seychelles	Public Utilities Corporation (PUC)	2018	0.40	238.30	0.40
South Africa	Eskom	2018	38.00	238.30	0.40
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	60.40	323.00	0.99
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	176.00	238.30	0.40
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	5.20	258.17	5.20
Ethiopia	Ethiopian Electric Utility (EEU)	N/A	No data	No data	No data

Reported System Average Interruption Duration Index (distribution)

Country	Utility	Year	Value (hours)	Max value in group (hours)	Min value in group (hours)
Ghana	Electricity Company of Ghana (ECG)	2018	75.99	258.17	5.20
Kenya	Kenya Power and Lighting Company (KPLC)	2018	258.17	258.17	5.20
Namibia	Central North Regional Electricity Distributor (CENORED)	N/A	No data	No data	No data
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	N/A	No data	No data	No data
Namibia	Northern Regions Electricity Distributor (NORED)	N/A	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	N/A	No data	No data	No data
Nigeria	Benin Electricity Distribution Company (BEDC)	N/A	No data	No data	No data
Nigeria	Eko Electricity Distribution Company (EKEDC)	N/A	No data	No data	No data
Nigeria	Enugu Electricity Distribution Company (EEDC)	N/A	No data	No data	No data
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	N/A	No data	No data	No data
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	N/A	No data	No data	No data
Nigeria	Jos Electricity Distribution Company (Jos)	N/A	No data	No data	No data
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	N/A	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	N/A	No data	No data	No data
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	N/A	No data	No data	No data
Nigeria	Yola Electricity Distribution Company (YEDC)	N/A	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	58.60	258.17	5.20
Uganda	Umeme	2018	50.20	258.17	5.20
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2018	243.60	243.60	243.60

Table A.34 Reported System Average Interruption Frequency Index (distribution)

Indicator: Reported System Average Interruption Frequency Index (distribution)

Definition: Sum of number of customers affected by an outage divided by total number of customers connected (as reported by the utility)

Reported System Average Interruption Frequency Index (distribution)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	3,658.00	3,658.00	0.10
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2016	330.00	330.00	1.30
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	29.30	3,658.00	0.10
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	27.95	3,658.00	0.10
Central African Rep.	Energie Centrafricaine (ENERCA)	N/A	No data	No data	No data
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	19.00	3,658.00	0.10
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	N/A	No data	No data	No data
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	2015	24.00	330.00	1.50
Eswatini	Eswatini Electricity Company (EEC)	2018	28.93	3,658.00	0.10
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data

Reported System Average Interruption Frequency Index (distribution)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
Guinea	Electricité de Guinée (EDG)	2018	90.70	3,658.00	0.10
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	2017	24.10	3,131.00	2.00
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	N/A	No data	No data	No data
Mali	Energie du Mali (EDM)	2016	62.50	330.00	1.30
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2018	17.00	3,658.00	0.10
Mauritius	Central Electricity Board (CEB)	2018	1.81	3,658.00	0.10
Mozambique	Electricidade de Moçambique (EDM)	2014	1.14	193.33	1.14
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	288.00	3,658.00	0.10
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	56.60	3,658.00	0.10
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	19.03	3,658.00	0.10
Seychelles	Public Utilities Corporation (PUC)	2018	0.10	3,658.00	0.10
South Africa	Eskom	2018	14.90	3,658.00	0.10
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	61.90	3,131.00	2.00
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	17.90	3,658.00	0.10
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2018	2.30	57.49	2.30
Ethiopia	Ethiopian Electric Utility (EEU)	N/A	No data	No data	No data

Reported System Average Interruption Frequency Index (distribution)

Country	Utility	Year	Value (interruptions)	Max value in group (interruptions)	Min value in group (interruptions)
Ghana	Electricity Company of Ghana (ECG)	2018	57.49	57.49	2.30
Kenya	Kenya Power and Lighting Company (KPLC)	2018	45.15	57.49	2.30
Namibia	Central North Regional Electricity Distributor (CENORED)	N/A	No data	No data	No data
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	N/A	No data	No data	No data
Namibia	Northern Regions Electricity Distributor (NORED)	N/A	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	N/A	No data	No data	No data
Nigeria	Benin Electricity Distribution Company (BEDC)	N/A	No data	No data	No data
Nigeria	Eko Electricity Distribution Company (EKEDC)	N/A	No data	No data	No data
Nigeria	Enugu Electricity Distribution Company (EEDC)	N/A	No data	No data	No data
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	N/A	No data	No data	No data
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	N/A	No data	No data	No data
Nigeria	Jos Electricity Distribution Company (Jos)	N/A	No data	No data	No data
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	N/A	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	N/A	No data	No data	No data
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	N/A	No data	No data	No data
Nigeria	Yola Electricity Distribution Company (YEDC)	N/A	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	14.40	57.49	2.30
Uganda	Umeme	2018	27.80	57.49	2.30
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2018	21.60	21.60	21.60

Table A.35 Reported transmission losses

Indicator: Reported transmission losses

Definition: Total losses on the transmission network as reported by the utility

Reported transmission losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	2.3	15.0	1.5
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	6.9	15.0	1.5
Central African Rep.	Energie Centrafricaine (ENERCA)	2015	6.8	9.6	2.6
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	6.0	15.0	1.5
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	6.0	15.0	1.5
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data

Reported transmission losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	2018	15.0	15.0	1.5
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	5.5	15.0	1.5
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	2018	7.6	15.0	1.5
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2014	9.0	10.5	2.5
Rwanda	Energy Utility Corporation Limited (EUCL)	N/A	No data	No data	No data
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	1.5	15.0	1.5
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	2018	2.2	15.0	1.5
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	6.0	8.5	2.0
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	2018	4.4	4.4	3.8
Ghana	Ghana Grid Company (GRIDCo)	2018	4.4	4.4	3.8
Kenya	Kenya Electricity Transmission Co. (KETRACO)	N/A	No data	No data	No data

Reported transmission losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Nigeria	Transmission Company of Nigeria (TCN)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Transmission Company (SETC)	N/A	No data	No data	No data
Uganda	Uganda Electricity Transmission Company (UETCL)	2018	3.8	4.4	3.8
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	N/A	No data	No data	No data
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	N/A	No data	No data	No data
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2012	4.4	4.4	4.4

Table A.36 Reported distribution losses

Indicator: Reported distribution losses

Definition: Total losses on the distribution network as reported by the utility

Reported distribution losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	N/A	No data	No data	No data
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	13.6	51.0	8.5
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	N/A	No data	No data	No data
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	N/A	No data	No data	No data
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	31.1	51.0	8.5
Central African Rep.	Energie Centrafricaine (ENERCA)	2015	34.3	34.3	6.4
Chad	Société Nationale d'Electricité (SNE)	N/A	No data	No data	No data
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	N/A	No data	No data	No data
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	15.0	51.0	8.5
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	25.0	51.0	8.5
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	N/A	No data	No data	No data
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	N/A	No data	No data	No data
Gambia	Gambia Water & Electricity Company (NAWEC)	N/A	No data	No data	No data
Guinea	Electricité de Guinée (EDG)	N/A	No data	No data	No data

Reported distribution losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	N/A	No data	No data	No data
Lesotho	Lesotho Electricity Company (LEC)	N/A	No data	No data	No data
Liberia	Liberia Electricity Corporation (LEC)	2018	51.0	51.0	8.5
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	N/A	No data	No data	No data
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	15.5	51.0	8.5
Mali	Energie du Mali (EDM)	N/A	No data	No data	No data
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	N/A	No data	No data	No data
Mauritius	Central Electricity Board (CEB)	N/A	No data	No data	No data
Mozambique	Electricidade de Moçambique (EDM)	2018	22.7	51.0	8.5
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2014	19.0	43.8	6.8
Rwanda	Energy Utility Corporation Limited (EUCL)	N/A	No data	No data	No data
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	N/A	No data	No data	No data
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	17.6	51.0	8.5
Seychelles	Public Utilities Corporation (PUC)	N/A	No data	No data	No data
South Africa	Eskom	2018	8.5	51.0	8.5
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	7.9	31.5	7.7
Togo	Electric Power Company of Togo (CEET)	N/A	No data	No data	No data
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	N/A	No data	No data	No data
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	N/A	No data	No data	No data
Ethiopia	Ethiopian Electric Utility (EEU)	N/A	No data	No data	No data
Ghana	Electricity Company of Ghana (ECG)	2018	24.3	36.0	11.0

Reported distribution losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Kenya	Kenya Power and Lighting Company (KPLC)	2018	16.8	36.0	11.0
Namibia	Central North Regional Electricity Distributor (CENORED)	2018	11.0	36.0	11.0
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	2016	9.0	23.7	9.0
Namibia	Northern Regions Electricity Distributor (NORED)	N/A	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	N/A	No data	No data	No data
Nigeria	Benin Electricity Distribution Company (BEDC)	N/A	No data	No data	No data
Nigeria	Eko Electricity Distribution Company (EKEDC)	N/A	No data	No data	No data
Nigeria	Enugu Electricity Distribution Company (EEDC)	N/A	No data	No data	No data
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	N/A	No data	No data	No data
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	N/A	No data	No data	No data
Nigeria	Jos Electricity Distribution Company (Jos)	N/A	No data	No data	No data
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	N/A	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	N/A	No data	No data	No data
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	N/A	No data	No data	No data
Nigeria	Yola Electricity Distribution Company (YEDC)	N/A	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	2018	36.0	36.0	11.0
Sudan	Sudanese Electricity Distribution Company (SEDC)	2017	15.4	35.0	12.0
Uganda	Umeme	2018	16.6	36.0	11.0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2012	13.1	13.1	13.1

Table A.37 Reported system losses

Indicator: Reported system losses

Definition: Total losses on the electricity network as reported by the utility; if the utility reported transmission and distribution losses separately, system losses are calculated as [1-(1-transmission Losses)*(1-distribution Losses)]

Reported system losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	N/A	No data	No data	No data
Botswana	Botswana Power Corporation (BPC)	2016	14.9	37.6	9.6
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	15.6	58.4	10.5
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2014	13.5	47.3	6.9
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	25.5	58.4	10.5
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	35.9	58.4	10.5
Central African Rep.	Energie Centrafricaine (ENERCA)	2015	38.7	40.0	6.6
Chad	Société Nationale d'Electricité (SNE)	2017	35.0	35.9	6.3
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2012	40.1	40.1	7.7
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	20.1	58.4	10.5
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	N/A	No data	No data	No data
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	29.5	58.4	10.5
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	N/A	No data	No data	No data
Eritrea	Eritrean Electricity Corporation (EEC)	N/A	No data	No data	No data
Eswatini	Eswatini Electricity Company (EEC)	2018	14.9	70.0	10.5
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2014	24.0	47.3	6.9
Gambia	Gambia Water & Electricity Company (NAWEC)	2018	17.6	58.4	10.5

Reported system losses

Country	Utility	Year	Value (%)	Max value in group (%)	Min value in group (%)
Guinea	Electricité de Guinée (EDG)	2018	30.0	58.4	10.5
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2013	46.6	46.6	7.1
Lesotho	Lesotho Electricity Company (LEC)	2016	12.9	37.6	9.6
Liberia	Liberia Electricity Corporation (LEC)	2018	58.4	58.4	10.5
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	2018	29.0	58.4	10.5
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	20.1	58.4	10.5
Mali	Energie du Mali (EDM)	2018	19.4	58.4	10.5
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2013	22.9	46.6	7.1
Mauritius	Central Electricity Board (CEB)	2017	6.3	35.9	6.3
Mozambique	Electricidade de Moçambique (EDM)	2018	28.6	58.4	10.5
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2014	26.3	47.3	6.9
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	20.0	58.4	10.5
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	34.8	58.4	10.5
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	18.8	58.4	10.5
Seychelles	Public Utilities Corporation (PUC)	2017	7.0	35.9	6.3
South Africa	Eskom	2018	10.5	58.4	10.5
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	13.4	35.9	6.3
Toto	Electric Power Company of Togo (CEET)	2017	14.3	35.9	6.3
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2014	12.4	47.3	6.9
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2012	16.9	16.9	16.9

Table A.38 Time to connect

Indicator: Time to connect

Definition: Time required to obtain an electricity connection in days (as reported by the World Bank's Doing Business Indicators)

Time to connect

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	2018	90	450	30
Botswana	Botswana Power Corporation (BPC)	2018	77	450	30
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	2018	169	450	30
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	2018	158	450	30
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	2018	88	450	30
Cameroon	Eneo Cameroun S.A. (Eneo)	2018	64	450	30
Central African Rep.	Energie Centrafricaine (ENERCA)	2018	98	450	30
Chad	Société Nationale d'Electricité (SNE)	2018	67	450	30
Comoros	Electricité d'Anjouan (EDA)	N/A	No data	No data	No data
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	2018	120	450	30
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	2018	55	450	30
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	2018	55	450	30
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	2018	44	450	30
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	2018	106	450	30
Eritrea	Eritrean Electricity Corporation (EEC)	2015	59	450	34
Eswatini	Eswatini Electricity Company (EEC)	2018	137	450	30
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	2018	148	450	30
Gambia	Gambia Water & Electricity Company (NAWEC)	2018	78	450	30
Guinea	Electricité de Guinée (EDG)	2018	69	450	30

Time to connect

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	2018	257	450	30
Lesotho	Lesotho Electricity Company (LEC)	2018	114	450	30
Liberia	Liberia Electricity Corporation (LEC)	N/A	No data	No data	No data
Madagacar	Jiro Sy Rano Malagasy (JIRAMA)	2018	450	450	30
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	2018	127	450	30
Mali	Energie du Mali (EDM)	2018	120	450	30
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	2018	67	450	30
Mauritius	Central Electricity Board (CEB)	2018	81	450	30
Mozambique	Electricidade de Moçambique (EDM)	2018	54	450	30
Namibia	NamPower	N/A	No data	No data	No data
Niger	Société Nigérienne d'Electricité (NIGELEC)	2018	97	450	30
Rwanda	Energy Utility Corporation Limited (EUCL)	2018	30	450	30
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	2018	89	450	30
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	2018	75	450	30
Seychelles	Public Utilities Corporation (PUC)	2018	77	450	30
South Africa	Eskom	2018	109	450	30
Tanzania	Tanzania Electric Supply Company (TANESCO)	2017	109	450	34
Togo	Electric Power Company of Togo (CEET)	2018	66	450	30
Zambia	Copperbelt Energy Corporation (CEC)	N/A	No data	No data	No data
Zambia	Zambia Electricity Supply Corporation (ZESCO)	2018	117	450	30
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	2017	145	145	66
Ethiopia	Ethiopian Electric Utility (EEU)	2018	98	98	66
Ghana	Electricity Company of Ghana (ECG)	2017	79	145	66

Time to connect

Country	Utility	Year	Value (days)	Max value in group (days)	Min value in group (days)
Kenya	Kenya Power and Lighting Company (KPLC)	2018	97	98	66
Namibia	Central North Regional Electricity Distributor (CENORED)	N/A	No data	No data	No data
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	N/A	No data	No data	No data
Namibia	Northern Regions Electricity Distributor (NORED)	N/A	No data	No data	No data
Nigeria	Abuja Electricity Distribution Company (AEDC)	N/A	No data	No data	No data
Nigeria	Benin Electricity Distribution Company (BEDC)	N/A	No data	No data	No data
Nigeria	Eko Electricity Distribution Company (EKEDC)	N/A	No data	No data	No data
Nigeria	Enugu Electricity Distribution Company (EEDC)	N/A	No data	No data	No data
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	N/A	No data	No data	No data
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	N/A	No data	No data	No data
Nigeria	Jos Electricity Distribution Company (Jos)	N/A	No data	No data	No data
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	N/A	No data	No data	No data
Nigeria	Kano Electricity Distribution Company (KEDCO)	N/A	No data	No data	No data
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	N/A	No data	No data	No data
Nigeria	Yola Electricity Distribution Company (YEDC)	N/A	No data	No data	No data
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	N/A	No data	No data	No data
Sudan	Sudanese Electricity Distribution Company (SEDC)	2018	70	98	66
Uganda	Umeme	2018	66	98	66
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	2018	106	106	106

A.3.3 Transparency and accountability indicators

Table A.39 Total score on indicators of transparency and accountability

Indicator: Total score

Definition: Share of all indicators reported: number of all reported indicators divided by total number of indicators under the transparency and accountability dimension

Total score on indicators of transparency and accountability					
Country	**Utility**	**2016 (%)**	**2017 (%)**	**2018 (no web) (%)**	**2018 (web) (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	11	11	0	9
Botswana	Botswana Power Corporation (BPC)	47	5	53	61
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	5	21	21	26
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	0	0	0	0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	26	21	26	30
Cameroon	Eneo Cameroun S.A. (Eneo)	42	42	42	48
Central African Rep.	Energie Centrafricaine (ENERCA)	5	5	0	0
Chad	Société Nationale d'Electricité (SNE)	5	5	0	0
Comoros	Electricité d'Anjouan (EDA)	0	0	0	0
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	0	0	0	0
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	47	47	47	43
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	0	0	0	0
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	42	5	5	13
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	0	0	0	0
Eritrea	Eritrean Electricity Corporation (EEC)	0	0	0	0
Eswatini	Eswatini Electricity Company (EEC)	42	42	58	61
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	42	42	0	9

		Total score on indicators of transparency and accountability			
Gambia	Gambia Water & Electricity Company (NAWEC)	16	5	0	4
Guinea	Electricité de Guinée (EDG)	0	0	5	13
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	0	0	0	0
Lesotho	Lesotho Electricity Company (LEC)	11	0	5	4
Liberia	Liberia Electricity Corporation (LEC)	11	11	16	22
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	5	5	5	9
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	47	16	5	22
Mali	Energie du Mali (EDM)	21	21	11	9
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	0	0	0	0
Mauritius	Central Electricity Board (CEB)	58	58	74	78
Mozambique	Electricidade de Moçambique (EDM)	0	21	21	30
Namibia	NamPower	68	68	68	74
Niger	Société Nigérienne d'Electricité (NIGELEC)	0	0	0	4
Rwanda	Energy Utility Corporation Limited (EUCL)	16	16	21	30
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	16	11	11	9
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	53	58	47	57
Seychelles	Public Utilities Corporation (PUC)	16	47	47	48
South Africa	Eskom	79	37	84	87
Tanzania	Tanzania Electric Supply Company (TANESCO)	11	11	21	30
Togo	Electric Power Company of Togo (CEET)	32	32	11	22
Zambia	Copperbelt Energy Corporation (CEC)	63	63	68	57
Zambia	Zambia Electricity Supply Corporation (ZESCO)	79	79	21	30
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	26	37	26	24
Ghana	Volta River Authority (VRA)	47	47	16	19
Kenya	Kenya Electricity Generation Company (KenGen)	79	84	79	81

		Total score on indicators of transparency and accountability			
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	11	11	11	10
Sudan	Sudanese Thermal Power Generating Company (STPGC)	0	0	0	0
Uganda	Uganda Electricity Generation Company (UEGCL)	47	47	5	10
Zimbabwe	Zimbabwe Power Company (ZPC)	53	53	0	5
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	5	37	37	38
Ghana	Ghana Grid Company (GRIDCo)	47	47	63	62
Kenya	Kenya Electricity Transmission Co. (KETRACO)	58	58	47	48
Nigeria	Transmission Company of Nigeria (TCN)	5	5	5	5
Sudan	Sudanese Electricity Transmission Company (SETC)	0	0	0	0
Uganda	Uganda Electricity Transmission Company (UETCL)	5	21	11	14
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	16	16	21	22
Ethiopia	Ethiopian Electric Utility (EEU)	5	5	5	17
Ghana	Electricity Company of Ghana (ECG)	47	53	53	52
Kenya	Kenya Power and Lighting Company (KPLC)	74	74	79	83
Namibia	Central North Regional Electricity Distributor (CENORED)	16	26	32	30
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	63	63	63	65
Namibia	Northern Regions Electricity Distributor (NORED)	0	0	0	9
Nigeria	Abuja Electricity Distribution Company (AEDC)	32	32	32	39
Nigeria	Benin Electricity Distribution Company (BEDC)	0	0	0	0
Nigeria	Eko Electricity Distribution Company (EKEDC)	26	26	0	13
Nigeria	Enugu Electricity Distribution Company (EEDC)	0	0	0	0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	0	0	0	0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	0	0	0	0
Nigeria	Jos Electricity Distribution Company (Jos)	21	21	5	13

		Total score on indicators of transparency and accountability			
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	21	21	5	9
Nigeria	Kano Electricity Distribution Company (KEDCO)	21	21	26	22
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	16	21	21	17
Nigeria	Yola Electricity Distribution Company (YEDC)	16	0	5	9
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	0	5	0	4
Sudan	Sudanese Electricity Distribution Company (SEDC)	26	26	26	26
Uganda	Umeme	74	74	74	74
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	11	21	16	19
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	0	0	0	0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	0	0	0	0

Table A.40 Category score: Performance management and reporting

Indicator: Category score: Performance management and reporting

Definition: Share of indicators reported in the category of performance management and reporting: number of reported indicators divided by total number of category indicators

Category score: Performance management and reporting					
Country	**Utility**	**2016 (%)**	**2017 (%)**	**2018 (no web) (%)**	**2018 (web) (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	10	10	0	0
Botswana	Botswana Power Corporation (BPC)	50	10	50	50
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	10	20	20	20
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	0	0	0	0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	50	40	40	40
Cameroon	Eneo Cameroun S.A. (Eneo)	40	40	40	40
Central African Rep.	Energie Centrafricaine (ENERCA)	10	10	0	0
Chad	Société Nationale d'Electricité (SNE)	10	10	0	0
Comoros	Electricité d'Anjouan (EDA)	0	0	0	0
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	0	0	0	0
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	60	60	60	60
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	0	0	0	0
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	30	10	10	10
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	0	0	0	0
Eritrea	Eritrean Electricity Corporation (EEC)	0	0	0	0
Eswatini	Eswatini Electricity Company (EEC)	50	50	70	70
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	50	50	0	0
Gambia	Gambia Water & Electricity Company (NAWEC)	30	10	0	0
Guinea	Electricité de Guinée (EDG)	0	0	10	10

		Category score: Performance management and reporting			
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	0	0	0	0
Lesotho	Lesotho Electricity Company (LEC)	20	0	10	10
Liberia	Liberia Electricity Corporation (LEC)	10	10	20	20
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	10	10	10	10
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	50	30	10	10
Mali	Energie du Mali (EDM)	30	30	10	10
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	0	0	0	0
Mauritius	Central Electricity Board (CEB)	70	70	70	70
Mozambique	Electricidade de Moçambique (EDM)	0	40	40	40
Namibia	NamPower	70	70	70	70
Niger	Société Nigérienne d'Electricité (NIGELEC)	0	0	0	0
Rwanda	Energy Utility Corporation Limited (EUCL)	30	30	40	40
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	10	10	10	10
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	70	80	70	70
Seychelles	Public Utilities Corporation (PUC)	30	50	50	50
South Africa	Eskom	80	60	80	80
Tanzania	Tanzania Electric Supply Company (TANESCO)	20	20	40	40
Togo	Electric Power Company of Togo (CEET)	40	40	20	20
Zambia	Copperbelt Energy Corporation (CEC)	60	60	60	60
Zambia	Zambia Electricity Supply Corporation (ZESCO)	90	90	40	40
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	10	30	40	40
Ghana	Volta River Authority (VRA)	60	60	30	30
Kenya	Kenya Electricity Generation Company (KenGen)	70	80	70	70
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	10	10	10	10
Sudan	Sudanese Thermal Power Generating Company (STPGC)	0	0	0	0

		Category score: Performance management and reporting			
Uganda	Uganda Electricity Generation Company (UEGCL)	40	40	10	10
Zimbabwe	Zimbabwe Power Company (ZPC)	40	40	0	0
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	10	50	50	50
Ghana	Ghana Grid Company (GRIDCo)	50	50	70	70
Kenya	Kenya Electricity Transmission Co. (KETRACO)	60	60	50	50
Nigeria	Transmission Company of Nigeria (TCN)	10	10	10	10
Sudan	Sudanese Electricity Transmission Company (SETC)	0	0	0	0
Uganda	Uganda Electricity Transmission Company (UETCL)	10	40	10	10
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	20	20	30	30
Ethiopia	Ethiopian Electric Utility (EEU)	10	10	10	10
Ghana	Electricity Company of Ghana (ECG)	90	90	90	90
Kenya	Kenya Power and Lighting Company (KPLC)	60	60	70	70
Namibia	Central North Regional Electricity Distributor (CENORED)	20	40	50	50
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	60	60	60	60
Namibia	Northern Regions Electricity Distributor (NORED)	0	0	0	0
Nigeria	Abuja Electricity Distribution Company (AEDC)	30	30	30	30
Nigeria	Benin Electricity Distribution Company (BEDC)	0	0	0	0
Nigeria	Eko Electricity Distribution Company (EKEDC)	30	30	0	0
Nigeria	Enugu Electricity Distribution Company (EEDC)	0	0	0	0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	0	0	0	0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	0	0	0	0
Nigeria	Jos Electricity Distribution Company (Jos)	40	40	10	10
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	40	40	10	10
Nigeria	Kano Electricity Distribution Company (KEDCO)	40	40	50	50

	Category score: Performance management and reporting				
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	30	40	40	40
Nigeria	Yola Electricity Distribution Company (YEDC)	30	0	10	10
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	0	10	0	0
Sudan	Sudanese Electricity Distribution Company (SEDC)	20	20	20	20
Uganda	Umeme	70	70	70	70
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	20	40	20	20
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	0	0	0	0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	0	0	0	0

Table A.41 Are financial statements published on website?

Indicator: Financial statements published on website

Definition: Financial statements, completed to IFRS or OHADA standards, are published on the utility's website within 12 months of the end of the fiscal year

Are financial statements published on website?

Country	Utility	2016	2017	2018
VIUs				
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	Yes	No	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	Yes	Yes	Yes
Cameroon	Eneo Cameroun S.A. (Eneo)	Yes	Yes	Yes
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	Yes	Yes	Yes
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	Yes	Yes	Yes
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	Yes	Yes	No
Gambia	Gambia Water & Electricity Company (NAWEC)	Yes	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No

Are financial statements published on website?

Country	Utility	2016	2017	2018
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	Yes	No	No
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	Yes	Yes	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	Yes	Yes	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	Yes	No
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	Yes	Yes	Yes
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes	Yes	Yes
Seychelles	Public Utilities Corporation (PUC)	No	Yes	Yes
South Africa	Eskom	Yes	Yes	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	Yes
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes	Yes	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No	Yes	Yes
Ghana	Volta River Authority (VRA)	Yes	Yes	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No

Are financial statements published on website?

Country	Utility	2016	2017	2018
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	Yes	Yes	No
Zimbabwe	Zimbabwe Power Company (ZPC)	Yes	Yes	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	Yes	Yes
Ghana	Ghana Grid Company (GRIDCo)	No	No	Yes
Kenya	Kenya Electricity Transmission Co. (KETRACO)	Yes	Yes	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	Yes	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	Yes	Yes	Yes
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No	Yes	Yes
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes	Yes	Yes
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	Yes	Yes	Yes
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	Yes	Yes	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	Yes	Yes	No

Are financial statements published on website?

Country	Utility	2016	2017	2018
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	Yes	Yes	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	Yes	Yes	Yes
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	Yes	Yes	Yes
Nigeria	Yola Electricity Distribution Company (YEDC)	Yes	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	Yes	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.42 Do financial statements use IFRS/OHADA, and are they independently audited?

Indicator: Financial statements use IFRS/OHADA and are independently audited

Definition: The utility's financial statements are independently audited by an external party: internationally recognized audit firms, local firms appointed by the State Auditor, or the State Auditor itself

Do financial statements use IFRS/OHADA, and are they independently audited?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	Yes	Yes	No
Botswana	Botswana Power Corporation (BPC)	Yes	Yes	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	Yes	Yes	Yes
Cameroon	Eneo Cameroun S.A. (Eneo)	No	No	No
Central African Rep.	Energie Centrafricaine (ENERCA)	Yes	Yes	No
Chad	Société Nationale d'Electricité (SNE)	Yes	Yes	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	Yes	Yes	Yes
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	Yes	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	Yes	Yes	Yes
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	Yes	Yes	No
Gambia	Gambia Water & Electricity Company (NAWEC)	Yes	Yes	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No

Do financial statements use IFRS/OHADA, and are they independently audited?

Country	Utility	2016	2017	2018
Lesotho	Lesotho Electricity Company (LEC)	No	No	No
Liberia	Liberia Electricity Corporation (LEC)	Yes	Yes	Yes
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	Yes	Yes	Yes
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	Yes	Yes	Yes
Mali	Energie du Mali (EDM)	Yes	Yes	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	Yes	Yes	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	Yes	Yes
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	Yes	Yes	Yes
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes	Yes	Yes
Seychelles	Public Utilities Corporation (PUC)	Yes	Yes	Yes
South Africa	Eskom	Yes	Yes	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	Yes	Yes	Yes
Togo	Electric Power Company of Togo (CEET)	Yes	Yes	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes	Yes	Yes
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	Yes	Yes	Yes
Ghana	Volta River Authority (VRA)	Yes	Yes	Yes
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No

Do financial statements use IFRS/OHADA, and are they independently audited?

Country	Utility	2016	2017	2018
Uganda	Uganda Electricity Generation Company (UEGCL)	Yes	Yes	No
Zimbabwe	Zimbabwe Power Company (ZPC)	Yes	Yes	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	Yes	Yes	Yes
Ghana	Ghana Grid Company (GRIDCo)	Yes	Yes	Yes
Kenya	Kenya Electricity Transmission Co. (KETRACO)	Yes	Yes	Yes
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	Yes	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	Yes	Yes	Yes
Ethiopia	Ethiopian Electric Utility (EEU)	Yes	Yes	Yes
Ghana	Electricity Company of Ghana (ECG)	Yes	Yes	Yes
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	Yes	Yes	Yes
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes	Yes	Yes
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	Yes	Yes	Yes
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	Yes	Yes	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	Yes	Yes	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	Yes	Yes	No

Do financial statements use IFRS/OHADA, and are they independently audited?

Country	Utility	2016	2017	2018
Nigeria	Kano Electricity Distribution Company (KEDCO)	Yes	Yes	Yes
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	Yes	Yes	Yes
Nigeria	Yola Electricity Distribution Company (YEDC)	Yes	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	Yes	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	Yes	Yes	Yes
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.43 Does audit opinion contain qualifications?

Indicator: Audit opinion unqualified

Definition: The audit of the utility's financial statements finds that the statements are fairly and appropriately presented, without exception or qualification

Does audit opinion contain qualifications?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	Yes	No	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	Yes	No	No
Cameroon	Eneo Cameroun S.A. (Eneo)	No	No	No
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	Yes	Yes	Yes
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	Yes	Yes	Yes
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	Yes	Yes	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No

Does audit opinion contain qualifications?

Country	Utility	2016	2017	2018
Lesotho	Lesotho Electricity Company (LEC)	No	No	No
Liberia	Liberia Electricity Corporation (LEC)	No	No	Yes
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	Yes	No	No
Mali	Energie du Mali (EDM)	Yes	Yes	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	Yes	Yes	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	Yes	Yes
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	Yes	Yes	Yes
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	No	Yes	No
Seychelles	Public Utilities Corporation (PUC)	Yes	Yes	Yes
South Africa	Eskom	No	No	No
Tanzania	Tanzania Electric Supply Company (TANESCO)	Yes	Yes	Yes
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes	Yes	Yes
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No	No	Yes
Ghana	Volta River Authority (VRA)	Yes	Yes	Yes
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No

Does audit opinion contain qualifications?

Country	Utility	2016	2017	2018
Uganda	Uganda Electricity Generation Company (UEGCL)	No	No	No
Zimbabwe	Zimbabwe Power Company (ZPC)	Yes	Yes	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	No	No
Ghana	Ghana Grid Company (GRIDCo)	Yes	Yes	Yes
Kenya	Kenya Electricity Transmission Co. (KETRACO)	Yes	Yes	Yes
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	Yes	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	Yes	Yes	Yes
Kenya	Kenya Power and Lighting Company (KPLC)	No	No	No
Namibia	Central North Regional Electricity Distributor (CENORED)	Yes	Yes	Yes
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes	Yes	Yes
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	Yes	Yes	Yes
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	Yes	Yes	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	Yes	Yes	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	Yes	Yes	No

Does audit opinion contain qualifications?

Country	Utility	2016	2017	2018
Nigeria	Kano Electricity Distribution Company (KEDCO)	Yes	Yes	Yes
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	Yes	Yes
Nigeria	Yola Electricity Distribution Company (YEDC)	Yes	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	Yes	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.44 Category score—Integrity and internal controls

Indicator: Category score: Integrity and internal controls

Definition: Share of indicators reported in the category of integrity and internal controls: number of reported indicators divided by total number of category indicators

Category score: Integrity and internal controls					
Country	**Utility**	**2016 (%)**	**2017 (%)**	**2018 (no web) (%)**	**2018 (web) (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	0	0	0	17
Botswana	Botswana Power Corporation (BPC)	75	0	75	83
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	0	0	0	0
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	0	0	0	0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	0	0	0	0
Cameroon	Eneo Cameroun S.A. (Eneo)	25	25	25	33
Central African Rep.	Energie Centrafricaine (ENERCA)	0	0	0	0
Chad	Société Nationale d'Electricité (SNE)	0	0	0	0
Comoros	Electricité d'Anjouan (EDA)	0	0	0	0
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	0	0	0	0
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	25	25	25	17
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	0	0	0	0
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	100	0	0	17
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	0	0	0	0
Eritrea	Eritrean Electricity Corporation (EEC)	0	0	0	0
Eswatini	Eswatini Electricity Company (EEC)	0	0	25	33
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	0	0	0	17
Gambia	Gambia Water & Electricity Company (NAWEC)	0	0	0	17
Guinea	Electricité de Guinée (EDG)	0	0	0	33

		Category score: Integrity and internal controls			
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	0	0	0	0
Lesotho	Lesotho Electricity Company (LEC)	0	0	0	0
Liberia	Liberia Electricity Corporation (LEC)	25	25	25	33
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	0	0	0	0
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	75	0	0	33
Mali	Energie du Mali (EDM)	0	0	0	0
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	0	0	0	0
Mauritius	Central Electricity Board (CEB)	100	100	100	100
Mozambique	Electricidade de Moçambique (EDM)	0	0	0	17
Namibia	NamPower	50	50	50	67
Niger	Société Nigérienne d'Electricité (NIGELEC)	0	0	0	17
Rwanda	Energy Utility Corporation Limited (EUCL)	0	0	0	17
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	25	0	0	0
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	0	0	0	33
Seychelles	Public Utilities Corporation (PUC)	0	100	100	83
South Africa	Eskom	100	0	100	100
Tanzania	Tanzania Electric Supply Company (TANESCO)	0	0	0	17
Togo	Electric Power Company of Togo (CEET)	25	25	0	17
Zambia	Copperbelt Energy Corporation (CEC)	100	100	100	67
Zambia	Zambia Electricity Supply Corporation (ZESCO)	100	100	0	17
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	25	25	25	17
Ghana	Volta River Authority (VRA)	25	25	0	17
Kenya	Kenya Electricity Generation Company (KenGen)	100	100	100	100
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	0	0	0	0
Sudan	Sudanese Thermal Power Generating Company (STPGC)	0	0	0	0

		Category score: Integrity and internal controls			
Uganda	Uganda Electricity Generation Company (UEGCL)	100	100	0	17
Zimbabwe	Zimbabwe Power Company (ZPC)	100	100	0	17
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	0	25	25	33
Ghana	Ghana Grid Company (GRIDCo)	75	75	75	67
Kenya	Kenya Electricity Transmission Co. (KETRACO)	75	75	75	67
Nigeria	Transmission Company of Nigeria (TCN)	0	0	0	0
Sudan	Sudanese Electricity Transmission Company (SETC)	0	0	0	0
Uganda	Uganda Electricity Transmission Company (UETCL)	0	0	25	33
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	25	25	25	17
Ethiopia	Ethiopian Electric Utility (EEU)	0	0	0	17
Ghana	Electricity Company of Ghana (ECG)	0	0	0	0
Kenya	Kenya Power and Lighting Company (KPLC)	100	100	100	100
Namibia	Central North Regional Electricity Distributor (CENORED)	0	0	0	17
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	100	100	100	83
Namibia	Northern Regions Electricity Distributor (NORED)	0	0	0	17
Nigeria	Abuja Electricity Distribution Company (AEDC)	75	75	75	67
Nigeria	Benin Electricity Distribution Company (BEDC)	0	0	0	0
Nigeria	Eko Electricity Distribution Company (EKEDC)	50	50	0	17
Nigeria	Enugu Electricity Distribution Company (EEDC)	0	0	0	0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	0	0	0	0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	0	0	0	0
Nigeria	Jos Electricity Distribution Company (Jos)	0	0	0	17
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	0	0	0	0
Nigeria	Kano Electricity Distribution Company (KEDCO)	0	0	0	0

		Category score: Integrity and internal controls			
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	0	0	0	0
Nigeria	Yola Electricity Distribution Company (YEDC)	0	0	0	17
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	0	0	0	0
Sudan	Sudanese Electricity Distribution Company (SEDC)	25	25	25	17
Uganda	Umeme	100	100	100	83
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	0	0	25	33
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	0	0	0	0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	0	0	0	0

Table A.45 Does the utility's annual report provide information on audit committee activities?

Indicator: Annual report provides information on audit committee activities

Definition: The utility's annual report provides information on the activities on the audit committee

Does the utility's annual report provide information on audit committee activities?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	No	No	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No	No	No
Cameroon	Eneo Cameroun S.A. (Eneo)	No	No	No
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No	No	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	Yes	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	No	No	No
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	No	No	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	No	No	No

Does the utility's annual report provide information on audit committee activities?

Country	Utility	2016	2017	2018
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	No	No	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	Yes	Yes	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	No	No
Namibia	NamPower	No	No	No
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No	No	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	No	No	No
Seychelles	Public Utilities Corporation (PUC)	No	Yes	Yes
South Africa	Eskom	Yes	No	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	No
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes	Yes	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No	No	No
Ghana	Volta River Authority (VRA)	No	No	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	Yes	Yes	No

Does the utility's annual report provide information on audit committee activities?

Country	Utility	2016	2017	2018
Zimbabwe	Zimbabwe Power Company (ZPC)	Yes	Yes	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	No	No
Ghana	Ghana Grid Company (GRIDCo)	No	No	No
Kenya	Kenya Electricity Transmission Co. (KETRACO)	No	No	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	No	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	No	No	No
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No	No	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes	Yes	Yes
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	Yes	Yes	Yes
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No	No	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	No	No	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No	No	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No	No	No

Does the utility's annual report provide information on audit committee activities?

Country	Utility	2016	2017	2018
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	No	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	No	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.46 Does the utility Use e-procurement and follow open contracting standards?

Indicator: Utility uses e-procurement and follows open contracting standards

Definition: The utility uses e-procurement, comprising an ERP-enabled procurement process linked to a tendering web portal on the company's website. The web portal should (1) enable supplier registration; (2) post tender opportunities and bidding documents; (3) enable bid submissions; and (4) post clarifications, etc. The utility also follows open contracting standards

Does the utility use e-procurement and follow open contracting standards?

Country	Utility	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No
Botswana	Botswana Power Corporation (BPC)	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No
Cameroon	Eneo Cameroun S.A. (Eneo)	No
Central African Rep.	Energie Centrafricaine (ENERCA)	No
Chad	Société Nationale d'Electricité (SNE)	No
Comoros	Electricité d'Anjouan (EDA)	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No
Eritrea	Eritrean Electricity Corporation (EEC)	No
Eswatini	Eswatini Electricity Company (EEC)	No
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No
Guinea	Electricité de Guinée (EDG)	Yes

Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No
Lesotho	Lesotho Electricity Company (LEC)	No
Liberia	Liberia Electricity Corporation (LEC)	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	Yes
Mali	Energie du Mali (EDM)	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No
Mauritius	Central Electricity Board (CEB)	Yes
Mozambique	Electricidade de Moçambique (EDM)	No
Namibia	NamPower	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes
Seychelles	Public Utilities Corporation (PUC)	No
South Africa	Eskom	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No
Togo	Electric Power Company of Togo (CEET)	Yes
Zambia	Copperbelt Energy Corporation (CEC)	No
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes
Generation-only utilities		
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No
Ghana	Volta River Authority (VRA)	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No
Uganda	Uganda Electricity Generation Company (UEGCL)	No

Zimbabwe	Zimbabwe Power Company (ZPC)	No
Transmission-only utilities		
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No
Ghana	Ghana Grid Company (GRIDCo)	No
Kenya	Kenya Electricity Transmission Co. (KETRACO)	No
Nigeria	Transmission Company of Nigeria (TCN)	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No
Distribution-only utilities		
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No
Ethiopia	Ethiopian Electric Utility (EEU)	No
Ghana	Electricity Company of Ghana (ECG)	No
Kenya	Kenya Power and Lighting Company (KPLC)	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	No
Namibia	Northern Regions Electricity Distributor (NORED)	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	No
Nigeria	Benin Electricity Distribution Company (BEDC)	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No
Nigeria	Jos Electricity Distribution Company (Jos)	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No

Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No
Uganda	Umeme	No
Generation-transmission utilities		
Ethiopia	Ethiopian Electric Power (EEP)	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No
Transmission-distribution utilities		
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No

Table A.47 Category score: Capital markets discipline

Indicator: Category score: Capital markets discipline

Definition: Share of indicators reported in the category of capital markets discipline: number of reported indicators divided by total number of category indicators

Category score: Capital markets discipline					
Country	**Utility**	**2016 (%)**	**2017 (%)**	**2018 (no web) (%)**	**2018 (web) (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	0	0	0	0
Botswana	Botswana Power Corporation (BPC)	0	0	0	0
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	0	0	0	0
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	0	0	0	0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	0	0	0	0
Cameroon	Eneo Cameroun S.A. (Eneo)	0	0	0	0
Central African Rep.	Energie Centrafricaine (ENERCA)	0	0	0	0
Chad	Société Nationale d'Electricité (SNE)	0	0	0	0
Comoros	Electricité d'Anjouan (EDA)	0	0	0	0
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	0	0	0	0
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	0	0	0	0
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	0	0	0	0
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	0	0	0	0
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	0	0	0	0
Eritrea	Eritrean Electricity Corporation (EEC)	0	0	0	0
Eswatini	Eswatini Electricity Company (EEC)	0	0	0	0
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	0	0	0	0
Gambia	Gambia Water & Electricity Company (NAWEC)	0	0	0	0
Guinea	Electricité de Guinée (EDG)	0	0	0	0

		Category score: Capital markets discipline			
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	0	0	0	0
Lesotho	Lesotho Electricity Company (LEC)	0	0	0	0
Liberia	Liberia Electricity Corporation (LEC)	0	0	0	0
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	0	0	0	0
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	0	0	0	0
Mali	Energie du Mali (EDM)	0	0	0	0
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	0	0	0	0
Mauritius	Central Electricity Board (CEB)	0	0	0	0
Mozambique	Electricidade de Moçambique (EDM)	0	0	0	0
Namibia	NamPower	50	50	50	50
Niger	Société Nigérienne d'Electricité (NIGELEC)	0	0	0	0
Rwanda	Energy Utility Corporation Limited (EUCL)	0	0	0	0
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	0	0	0	0
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	50	50	50	50
Seychelles	Public Utilities Corporation (PUC)	0	0	0	0
South Africa	Eskom	50	50	50	50
Tanzania	Tanzania Electric Supply Company (TANESCO)	0	0	0	0
Togo	Electric Power Company of Togo (CEET)	0	0	0	0
Zambia	Copperbelt Energy Corporation (CEC)	0	0	50	50
Zambia	Zambia Electricity Supply Corporation (ZESCO)	0	0	0	0
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	0	0	0	0
Ghana	Volta River Authority (VRA)	0	0	0	0
Kenya	Kenya Electricity Generation Company (KenGen)	50	50	50	50
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	0	0	0	0
Sudan	Sudanese Thermal Power Generating Company (STPGC)	0	0	0	0

		Category score: Capital markets discipline			
Uganda	Uganda Electricity Generation Company (UEGCL)	0	0	0	0
Zimbabwe	Zimbabwe Power Company (ZPC)	0	0	0	0
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	0	0	0	0
Ghana	Ghana Grid Company (GRIDCo)	0	0	0	0
Kenya	Kenya Electricity Transmission Co. (KETRACO)	0	0	0	0
Nigeria	Transmission Company of Nigeria (TCN)	0	0	0	0
Sudan	Sudanese Electricity Transmission Company (SETC)	0	0	0	0
Uganda	Uganda Electricity Transmission Company (UETCL)	0	0	0	0
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	0	0	0	0
Ethiopia	Ethiopian Electric Utility (EEU)	0	0	0	0
Ghana	Electricity Company of Ghana (ECG)	0	0	0	0
Kenya	Kenya Power and Lighting Company (KPLC)	50	50	50	50
Namibia	Central North Regional Electricity Distributor (CENORED)	0	0	0	0
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	0	0	0	0
Namibia	Northern Regions Electricity Distributor (NORED)	0	0	0	0
Nigeria	Abuja Electricity Distribution Company (AEDC)	0	0	0	0
Nigeria	Benin Electricity Distribution Company (BEDC)	0	0	0	0
Nigeria	Eko Electricity Distribution Company (EKEDC)	0	0	0	0
Nigeria	Enugu Electricity Distribution Company (EEDC)	0	0	0	0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	0	0	0	0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	0	0	0	0
Nigeria	Jos Electricity Distribution Company (Jos)	0	0	0	0
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	0	0	0	0
Nigeria	Kano Electricity Distribution Company (KEDCO)	0	0	0	0

	Category score: Capital markets discipline				
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	0	0	0	0
Nigeria	Yola Electricity Distribution Company (YEDC)	0	0	0	0
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	0	0	0	0
Sudan	Sudanese Electricity Distribution Company (SEDC)	0	0	0	0
Uganda	Umeme	50	50	50	50
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	0	0	0	0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	0	0	0	0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	0	0	0	0

Table A.48 Is a portion of the utility's shares listed publicly?

Indicator: Portion of shares listed publicly

Definition: Some of the utility's shares are listed publicly

Is a portion of the utility's shares listed publicly?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	No	No	No
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No	No	No
Cameroon	Eneo Cameroun S.A. (Eneo)	No	No	No
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No	No	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	No	No	No
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	No	No	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	No	No	No

Is a portion of the utility's shares listed publicly?

Country	Utility	2016	2017	2018
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	No	No	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	No	No	No
Mozambique	Electricidade de Moçambique (EDM)	No	No	No
Namibia	NamPower	No	No	No
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No	No	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	No	No	No
Seychelles	Public Utilities Corporation (PUC)	No	No	No
South Africa	Eskom	No	No	No
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	No
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	No	No	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No	No	No
Ghana	Volta River Authority (VRA)	No	No	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	No	No	No

Is a portion of the utility's shares listed publicly?

Country	Utility	2016	2017	2018
Zimbabwe	Zimbabwe Power Company (ZPC)	No	No	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	No	No
Ghana	Ghana Grid Company (GRIDCo)	No	No	No
Kenya	Kenya Electricity Transmission Co. (KETRACO)	No	No	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	No	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	No	No	No
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No	No	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	No	No	No
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	No	No	No
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No	No	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	No	No	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No	No	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No	No	No

Is a portion of the utility's shares listed publicly?

Country	Utility	2016	2017	2018
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	No	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	No	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.49 Does the utility maintain a credit rating?

Indicator: Utility maintains a credit rating

Definition: The utility maintains a credit rating

Does the utility maintain a credit rating?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	No	No	No
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	No	No
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No	No	No
Cameroon	Eneo Cameroun S.A. (Eneo)	No	No	No
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No	No	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	No	No	No
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	No	No	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	No	No	No

Does the utility maintain a credit rating?

Country	Utility	2016	2017	2018
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	No	No	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	No	No	No
Mozambique	Electricidade de Moçambique (EDM)	No	No	No
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No	No	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes	Yes	Yes
Seychelles	Public Utilities Corporation (PUC)	No	No	No
South Africa	Eskom	Yes	Yes	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	No
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	No	No	No
Zambia	Zambia Electricity Supply Corporation (ZESCO)	No	No	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	No	No	No
Ghana	Volta River Authority (VRA)	No	No	No
Kenya	Kenya Electricity Generation Company (KenGen)	No	No	No
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	No	No	No

Does the utility maintain a credit rating?

Country	Utility	2016	2017	2018
Zimbabwe	Zimbabwe Power Company (ZPC)	No	No	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	No	No
Ghana	Ghana Grid Company (GRIDCo)	No	No	No
Kenya	Kenya Electricity Transmission Co. (KETRACO)	No	No	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	No	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	No	No	No
Kenya	Kenya Power and Lighting Company (KPLC)	No	No	No
Namibia	Central North Regional Electricity Distributor (CENORED)	No	No	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	No	No	No
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	No	No	No
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No	No	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	No	No	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No	No	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No	No	No

Does the utility maintain a credit rating?

Country	Utility	2016	2017	2018
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	No	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	No	No	No
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	No	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.50 Category score: Stakeholder relations

Indicator: Category score: Stakeholder relations

Definition: Share of indicators reported in the stakeholder relations category: number of reported indicators divided by total number of category indicators

Category score: Stakeholder relations					
Country	**Utility**	**2016 (%)**	**2017 (%)**	**2018 (no web) (%)**	**2018 (web) (%)**
VIUs					
Benin	Société Béninoise d'Energie Electrique (SBEE)	33	33	0	20
Botswana	Botswana Power Corporation (BPC)	33	0	67	80
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	0	67	67	80
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	0	0	0	0
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	0	0	33	60
Cameroon	Eneo Cameroun S.A. (Eneo)	100	100	100	100
Central African Rep.	Energie Centrafricaine (ENERCA)	0	0	0	0
Chad	Société Nationale d'Electricité (SNE)	0	0	0	0
Comoros	Electricité d'Anjouan (EDA)	0	0	0	0
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	0	0	0	0
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	67	67	67	60
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	0	0	0	0
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	33	0	0	20
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	0	0	0	0
Eritrea	Eritrean Electricity Corporation (EEC)	0	0	0	0
Eswatini	Eswatini Electricity Company (EEC)	100	100	100	100
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	100	100	0	20
Gambia	Gambia Water & Electricity Company (NAWEC)	0	0	0	0
Guinea	Electricité de Guinée (EDG)	0	0	0	0

		Category score: Stakeholder relations			
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	0	0	0	0
Lesotho	Lesotho Electricity Company (LEC)	0	0	0	0
Liberia	Liberia Electricity Corporation (LEC)	0	0	0	20
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	0	0	0	20
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	33	0	0	40
Mali	Energie du Mali (EDM)	0	0	0	0
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	0	0	0	0
Mauritius	Central Electricity Board (CEB)	0	0	100	100
Mozambique	Electricidade de Moçambique (EDM)	0	0	0	40
Namibia	NamPower	100	100	100	100
Niger	Société Nigérienne d'Electricité (NIGELEC)	0	0	0	0
Rwanda	Energy Utility Corporation Limited (EUCL)	0	0	0	40
São Tomé and Príncipe	Empresa de Água e Electricidade (EMAE)	33	33	33	20
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	67	67	33	60
Seychelles	Public Utilities Corporation (PUC)	0	0	0	20
South Africa	Eskom	67	0	100	100
Tanzania	Tanzania Electric Supply Company (TANESCO)	0	0	0	40
Togo	Electric Power Company of Togo (CEET)	33	33	0	40
Zambia	Copperbelt Energy Corporation (CEC)	67	67	67	40
Zambia	Zambia Electricity Supply Corporation (ZESCO)	67	67	0	40
Generation-only utilities					
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	100	100	0	0
Ghana	Volta River Authority (VRA)	67	67	0	0
Kenya	Kenya Electricity Generation Company (KenGen)	100	100	100	100
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	33	33	33	33
Sudan	Sudanese Thermal Power Generating Company (STPGC)	0	0	0	0

	Category score: Stakeholder relations				
Uganda	Uganda Electricity Generation Company (UEGCL)	33	33	0	0
Zimbabwe	Zimbabwe Power Company (ZPC)	67	67	0	0
Transmission-only utilities					
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	0	33	33	33
Ghana	Ghana Grid Company (GRIDCo)	33	33	67	67
Kenya	Kenya Electricity Transmission Co. (KETRACO)	67	67	33	33
Nigeria	Transmission Company of Nigeria (TCN)	0	0	0	0
Sudan	Sudanese Electricity Transmission Company (SETC)	0	0	0	0
Uganda	Uganda Electricity Transmission Company (UETCL)	0	0	0	0
Distribution-only utilities					
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	0	0	0	20
Ethiopia	Ethiopian Electric Utility (EEU)	0	0	0	40
Ghana	Electricity Company of Ghana (ECG)	0	33	33	60
Kenya	Kenya Power and Lighting Company (KPLC)	100	100	100	100
Namibia	Central North Regional Electricity Distributor (CENORED)	33	33	33	20
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	67	67	67	80
Namibia	Northern Regions Electricity Distributor (NORED)	0	0	0	20
Nigeria	Abuja Electricity Distribution Company (AEDC)	0	0	0	40
Nigeria	Benin Electricity Distribution Company (BEDC)	0	0	0	0
Nigeria	Eko Electricity Distribution Company (EKEDC)	0	0	0	40
Nigeria	Enugu Electricity Distribution Company (EEDC)	0	0	0	0
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	0	0	0	0
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	0	0	0	0
Nigeria	Jos Electricity Distribution Company (Jos)	0	0	0	20
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	0	0	0	20
Nigeria	Kano Electricity Distribution Company (KEDCO)	0	0	0	0

Category score: Stakeholder relations					
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	0	0	0	0
Nigeria	Yola Electricity Distribution Company (YEDC)	0	0	0	0
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	0	0	0	20
Sudan	Sudanese Electricity Distribution Company (SEDC)	67	67	67	60
Uganda	Umeme	67	67	67	80
Generation-transmission utilities					
Ethiopia	Ethiopian Electric Power (EEP)	0	0	0	0
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	0	0	0	0
Transmission-distribution utilities					
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	0	0	0	0

Table A.51 Does the utility enable reports of service interruptions and billing inquiries via SMS, app, or call center?

Indicator: SMS/app/call center supports service interruption reporting and billing inquiries

Definition: The utility supports service interruption reporting and tracking and billing inquiries via its website, SMS, and/or mobile app

Does the utility enable reports of service interruptions and billing inquiries via SMS, app, or call center?

Country	Utility	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	Yes
Botswana	Botswana Power Corporation (BPC)	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	Yes
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	Yes
Cameroon	Eneo Cameroun S.A. (Eneo)	Yes
Central African Rep.	Energie Centrafricaine (ENERCA)	No
Chad	Société Nationale d'Electricité (SNE)	No
Comoros	Electricité d'Anjouan (EDA)	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No
Eritrea	Eritrean Electricity Corporation (EEC)	No
Eswatini	Eswatini Electricity Company (EEC)	Yes
Ethiopia	La Société d'énergie et d'eau du Gabon (SEEG)	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No
Guinea	Electricité de Guinée (EDG)	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No
Lesotho	Lesotho Electricity Company (LEC)	No

Does the utility enable reports of service interruptions and billing inquiries via SMS, app, or call center?

Country	Utility	2018
Liberia	Liberia Electricity Corporation (LEC)	Yes
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	Yes
Mali	Energie du Mali (EDM)	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No
Mauritius	Central Electricity Board (CEB)	Yes
Mozambique	Electricidade de Moçambique (EDM)	Yes
Namibia	NamPower	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No
Rwanda	Energy Utility Corporation Limited (EUCL)	Yes
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes
Seychelles	Public Utilities Corporation (PUC)	No
South Africa	Eskom	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	Yes
Togo	Electric Power Company of Togo (CEET)	Yes
Zambia	Copperbelt Energy Corporation (CEC)	No
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes
Distribution-only utilities		
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	Yes
Ethiopia	Ethiopian Electric Utility (EEU)	Yes
Ghana	Electricity Company of Ghana (ECG)	Yes
Kenya	Kenya Power and Lighting Company (KPLC)	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes

Does the utility enable reports of service interruptions and billing inquiries via SMS, app, or call center?

Country	Utility	2018
Namibia	Northern Regions Electricity Distributor (NORED)	Yes
Nigeria	Abuja Electricity Distribution Company (AEDC)	Yes
Nigeria	Benin Electricity Distribution Company (BEDC)	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	Yes
Nigeria	Enugu Electricity Distribution Company (EEDC)	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No
Nigeria	Jos Electricity Distribution Company (Jos)	Yes
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	Yes
Nigeria	Kano Electricity Distribution Company (KEDCO)	No
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	Yes
Sudan	Sudanese Electricity Distribution Company (SEDC)	Yes
Uganda	Umeme	Yes
Transmission-distribution utilities		
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No

Table A.52 Does the utility's annual report include an environmental narrative?

Indicator: Annual report includes environmental narrative

Definition: The utility's annual report includes an environmental narrative

Does the utility's annual report include an environmental narrative?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	No	No	No
Botswana	Botswana Power Corporation (BPC)	No	No	Yes
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	Yes	Yes
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No	No	Yes
Cameroon	Eneo Cameroun S.A. (Eneo)	Yes	Yes	Yes
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	Yes	Yes	Yes
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	No	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	Yes	Yes	Yes
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	Yes	Yes	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	No	No	No

Does the utility's annual report include an environmental narrative?

Country	Utility	2016	2017	2018
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	No	No	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	No	No	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	No	No
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No	No	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	No	No	No
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	No	No	No
Seychelles	Public Utilities Corporation (PUC)	No	No	No
South Africa	Eskom	Yes	No	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	No
Togo	Electric Power Company of Togo (CEET)	No	No	No
Zambia	Copperbelt Energy Corporation (CEC)	Yes	Yes	Yes
Zambia	Zambia Electricity Supply Corporation (ZESCO)	Yes	Yes	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	Yes	Yes	No
Ghana	Volta River Authority (VRA)	Yes	Yes	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	Yes	Yes	Yes
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	Yes	Yes	No

Does the utility's annual report include an environmental narrative?

Country	Utility	2016	2017	2018
Zimbabwe	Zimbabwe Power Company (ZPC)	Yes	Yes	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	No	No
Ghana	Ghana Grid Company (GRIDCo)	Yes	Yes	Yes
Kenya	Kenya Electricity Transmission Co. (KETRACO)	Yes	Yes	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	No	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	No	Yes	No
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No	No	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	Yes	Yes	Yes
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	No	No	No
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No	No	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	No	No	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No	No	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No	No	No

Does the utility's annual report include an environmental narrative?

Country	Utility	2016	2017	2018
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	No	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	Yes	Yes	Yes
Uganda	Umeme	Yes	Yes	Yes
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	No	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

Table A.53 Does the utility's annual report include gender statistics?

Indicator: Annual report includes gender statistics

Definition: The utility's annual report reports gender statistics

Does the utility's annual report include gender statistics?

Country	Utility	2016	2017	2018
Benin	Société Béninoise d'Energie Electrique (SBEE)	Yes	Yes	No
Botswana	Botswana Power Corporation (BPC)	No	No	No
Burkina Faso	Société Nationale d'électricité du Burkina Faso (SONABEL)	No	Yes	Yes
Burundi	Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	No	No	No
Cabo Verde	Empresa de Electricidade e Àqua (ELECTRA)	No	No	No
Cameroon	Eneo Cameroun S.A. (Eneo)	Yes	Yes	Yes
Central African Rep.	Energie Centrafricaine (ENERCA)	No	No	No
Chad	Société Nationale d'Electricité (SNE)	No	No	No
Comoros	Electricité d'Anjouan (EDA)	No	No	No
Comoros	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)	No	No	No
Côte d'Ivoire	Compagnie Ivoirienne d'Electricité (CIE)	No	No	No
Côte d'Ivoire	Société des Energies de Côte d'Ivoire (CIENERGIES)	No	No	No
Dem. Rep. Congo	Société Nationale d'Electricité (SNEL)	Yes	No	No
Equatorial Guinea	Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	No	No	No
Eritrea	Eritrean Electricity Corporation (EEC)	No	No	No
Eswatini	Eswatini Electricity Company (EEC)	Yes	Yes	Yes
Gabon	La Société d'énergie et d'eau du Gabon (SEEG)	Yes	Yes	No
Gambia	Gambia Water & Electricity Company (NAWEC)	No	No	No
Guinea	Electricité de Guinée (EDG)	No	No	No
Guinea-Bissau	Electricidade e Aguas de Guine-Bissau (EAGB)	No	No	No
Lesotho	Lesotho Electricity Company (LEC)	No	No	No

Does the utility's annual report include gender statistics?

Country	Utility	2016	2017	2018
Liberia	Liberia Electricity Corporation (LEC)	No	No	No
Madagascar	Jiro Sy Rano Malagasy (JIRAMA)	No	No	No
Malawi	Electricity Supply Corporation of Malawi (ESCOM)	No	No	No
Mali	Energie du Mali (EDM)	No	No	No
Mauritania	Société Mauritanienne d'Électricité (SOMELEC)	No	No	No
Mauritius	Central Electricity Board (CEB)	No	No	Yes
Mozambique	Electricidade de Moçambique (EDM)	No	No	No
Namibia	NamPower	Yes	Yes	Yes
Niger	Société Nigérienne d'Electricité (NIGELEC)	No	No	No
Rwanda	Energy Utility Corporation Limited (EUCL)	No	No	No
São Tomé and Principe	Empresa de Água e Electricidade (EMAE)	Yes	Yes	Yes
Senegal	Société Nationale d'Électricité du Sénégal (Senelec)	Yes	Yes	Yes
Seychelles	Public Utilities Corporation (PUC)	No	No	No
South Africa	Eskom	Yes	No	Yes
Tanzania	Tanzania Electric Supply Company (TANESCO)	No	No	No
Togo	Electric Power Company of Togo (CEET)	Yes	Yes	No
Zambia	Copperbelt Energy Corporation (CEC)	No	No	No
Zambia	Zambia Electricity Supply Corporation (ZESCO)	No	No	No
Generation-only utilities				
Angola	Empresa Pública de Produção de Electricidade (PRODEL)	Yes	Yes	No
Ghana	Volta River Authority (VRA)	No	No	No
Kenya	Kenya Electricity Generation Company (KenGen)	Yes	Yes	Yes
Sudan	Sudanese Hydro and Renewable Energy Generation Company (SHREG)	No	No	No
Sudan	Sudanese Thermal Power Generating Company (STPGC)	No	No	No
Uganda	Uganda Electricity Generation Company (UEGCL)	No	No	No

Does the utility's annual report include gender statistics?

Country	Utility	2016	2017	2018
Zimbabwe	Zimbabwe Power Company (ZPC)	No	No	No
Transmission-only utilities				
Angola	Empresa Rede Nacional de Transporte de Electricidade (RNT)	No	Yes	Yes
Ghana	Ghana Grid Company (GRIDCo)	No	No	No
Kenya	Kenya Electricity Transmission Co. (KETRACO)	No	No	No
Nigeria	Transmission Company of Nigeria (TCN)	No	No	No
Sudan	Sudanese Electricity Transmission Company (SETC)	No	No	No
Uganda	Uganda Electricity Transmission Company (UETCL)	No	No	No
Distribution-only utilities				
Angola	Empresa Nacional de Distribução de Electricidade (ENDE)	No	No	No
Ethiopia	Ethiopian Electric Utility (EEU)	No	No	No
Ghana	Electricity Company of Ghana (ECG)	No	No	No
Kenya	Kenya Power and Lighting Company (KPLC)	Yes	Yes	Yes
Namibia	Central North Regional Electricity Distributor (CENORED)	No	No	No
Namibia	Erongo Regional Electricity Distributor (ErongoRED)	No	No	No
Namibia	Northern Regions Electricity Distributor (NORED)	No	No	No
Nigeria	Abuja Electricity Distribution Company (AEDC)	No	No	No
Nigeria	Benin Electricity Distribution Company (BEDC)	No	No	No
Nigeria	Eko Electricity Distribution Company (EKEDC)	No	No	No
Nigeria	Enugu Electricity Distribution Company (EEDC)	No	No	No
Nigeria	Ibadan Electricity Distribution Company (IBEDC)	No	No	No
Nigeria	Ikeja Electricity Distribution Company (Ikeja)	No	No	No
Nigeria	Jos Electricity Distribution Company (Jos)	No	No	No
Nigeria	Kaduna Electricity Distribution Company (Kaduna)	No	No	No
Nigeria	Kano Electricity Distribution Company (KEDCO)	No	No	No

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Country	Utility	2016	2017	2018
Nigeria	Port Harcourt Electricity Distribution Company (PHED)	No	No	No
Nigeria	Yola Electricity Distribution Company (YEDC)	No	No	No
Sierra Leone	Electricity Distribution and Supply Authority (EDSA)	No	No	No
Sudan	Sudanese Electricity Distribution Company (SEDC)	No	No	No
Uganda	Umeme	No	No	No
Generation-transmission utilities				
Ethiopia	Ethiopian Electric Power (EEP)	No	No	No
Sierra Leone	Electricity Generation and Transmission Company (EGTC)	No	No	No
Transmission-distribution utilities				
Zimbabwe	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)	No	No	No

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