

# Catalyzing Utility Reform in Sub-Saharan Africa

QUICK WINS MATTER FOR TRANSPARENCY AND ACCOUNTABILITY

TOPICAL PAPER

UTILITY PERFORMANCE AND BEHAVIOR IN AFRICA TODAY

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# Catalyzing Utility Reform in Sub-Saharan Africa

## Quick Wins Matter for Transparency and Accountability

YADVIGA SEMIKOLENOVA, IAN DRISCALL AND MIN A LEE

### 1. INTRODUCTION

Robust corporate governance is vital if power utilities are to perform well (Irwin and Yamamoto 2004; Foster and Rana 2020). Corporate governance has internal and external dimensions. Aspects of internal governance include board autonomy, the quality of board proceedings, separation of board and CEO roles, and clear expectations for the CEO's performance. These expectations should then cascade down through management and staff. Employment policies help to ensure the presence of high-quality management and staff who are able to meet expectations. The methodical collection of data helps in monitoring performance of management, staff, and board. This means appropriate and supporting information systems must be available.

All this happens within an accountability context established by an effective board. But it may also be set, in part, by external actors, such as the state or private owners, capital markets, or regulators. *Transparency* is achieved when stakeholders (owners, oversight agencies, and consumers) are able to compare the utility's actual performance against the performance goals set in the *accountability* framework, which should specify the performance data, organizational structures, policies, processes, and procedures that are to be made available. Transparency and accountability (T&A) are therefore key to good governance. Utilities that are accountable for their performance, through transparent and timely report-

ing, help build financially healthy entities that support economic development and expand access to energy.

The World Bank has broken new ground with a data platform called "Utility Performance and Behavior in Africa Today" (UPBEAT). As a first step in exploring the health of corporate governance, UPBEAT details electric utilities across Sub-Saharan Africa. The resulting platform allows industry participants to understand, diagnose, and benchmark utilities across dimensions related to finance, operations, and T&A, thereby informing the decisions made by policy makers, financiers, and private sector stakeholders. UPBEAT allows the utilities' varied practices and experiences to be shared and compared. This sharing and comparing of data encourages good practices and continuous, consistent monitoring. Utility managers find it easier to diagnose problems and find solutions when they have measurement baselines and peer data.

UPBEAT collects and then connects a number of attributes seen in power utilities. First, it establishes the status quo and provides a tool allowing users to track changes over time. Second, it focuses on individual utility analyses, rather than aggregating the utilities and analyzing the sector as a whole. Third, it harnesses facts and data that are either publicly available or can be easily verified; its assessments avoid metrics that rest on controversial assumptions that might undermine stakeholder confi-

dence. Fourth, it highlights the critical importance of T&A in setting targets, and then publicly compares performance against the targets.

This paper analyzes the data collected under UPBEAT's T&A mandate to draw conclusions on the status of the region's utilities. It also identifies what we call "quick wins"—simple achievements that could make utilities more transparent in the short term and spark important reforms. The paper first presents an overview of the literature and discusses objectives and methodology. It then moves on to present current T&A findings, making a case for certain improvements. Third, it recommends ways to obtain some quick wins. Fourth, and finally, the paper suggests ways to expand UPBEAT so it can track broader governance variables in the future.

## 2. LITERATURE REVIEW

While utilities subject to capital market discipline must comply with governance standards and market expectations, state-owned utilities generally lack such guidance. Best global practice is the benchmark for good governance of state-owned enterprises (SOEs) (OECD 2015; World Bank 2014), though this may have to be adapted to prevailing country-specific realities.

A recent paper (van den Berg and Danilenko 2017) contained a lucid explanation for the relationship between governance and T&A: "Strong institutional frameworks and norms and policies . . . are key determinants for success." In other words, good governance drives T&A outcomes. Studies of corporate governance and SOE performance in Lithuania (Curi, Gedvilas, and Lozano-Vivas 2016) and the Republic of Korea (Heo 2018) stress board quality in correlations of performance. Without board quality, reform in T&A and other governance features cannot succeed.

Few comprehensive and comparative multicountry studies have been done on governance and T&A; and even fewer on the impact of these on operating and financial performance in SOEs in general or utilities in particular. Many country-level studies are available, but few follow a common methodology. No study on the effect of governance and T&A on operating and financial performance of utilities has focused on Sub-Saharan Africa. However, on the regulatory side the African Development Bank (AfDB) and the World Bank are collaborating to create the first global

index of regulatory frameworks in the power sector. The Global Electricity Regulatory Index (GERI) is based on the AfDB's Electricity Regulatory Index, launched in 2018, and a complementary index the World Bank developed in the same time period (Foster and Rana 2020). By measuring the adoption of regulatory best practices, GERI enables countries to identify gaps in their regulatory framework and benchmark their performance against global peers on regulatory governance and regulatory substance.

Comparative studies of utilities range across different sets of countries, and they deploy different methodologies and definitions of key indicators. They even differ on what factors best correlate with performance. Also, no study, including this one, can prove causality—good governance may drive better performance, on the one hand; on the other, better-performing companies may simply have more time and resources to devote to T&A and other governance matters. There could even be a positive feedback loop between them.

Other pertinent work includes the Worldwide Governance Indicators (which the World Bank updates annually<sup>1</sup>), but these high-level studies are not applicable to corporate governance. The World Bank's Regulatory Indicators for Sustainable Energy (RISE), which is global in scope, covers 35 countries in Sub-Saharan Africa (ESMAP 2020). RISE includes, as one of its eight performance indicators for electricity access, indicators of transparency and monitoring across the entire utility value chain. Financial discipline is identified by the regular publication of annual reports and financial statements. Their publication is weighted in aggregate on a par with data collection and reporting on SAIDI/SAIFI—system and service interruptions.<sup>2</sup> RISE 2020 notes that Sub-Saharan utilities show the steepest recent improvements in overall scores, driven mostly by greater electricity access and greater use of renewable energy. Notable improvements in transparency and monitoring are one of several drivers of progress in the access indicator. The RISE project proves that robust monitoring over several years does in fact encourage better T&A. Meaningful correlation between UPBEAT and RISE is not possible, however, because RISE has a country-level focus.

The most useful comparative study for this paper's analysis is Foster and Rana (2020). Their *Rethinking Power Sector Reform* studied 15 developing country utilities, including four in Sub-Saharan Africa.<sup>3</sup> In doing so, the authors defined a comprehensive utility governance indi-

cator (UGI) made up of five elements that overlap most of the indicators collected by UPBEAT, although they are organized differently. With a broader scope than just T&A indicators, the UGI includes internal governance components, such as board appointments, autonomy, roles, separation of responsibilities, and process. *Rethinking Power Sector Reform* concluded that by far the most noteworthy correlations with operating and financial performance are T&A in financial and human resource management.

It is widely agreed that weak governance is the root cause of most performance issues in the region's utilities. Weak governance undermines well-meaning attempts to improve performance using, for example, management contracts. Also critical for utilities is noninterference from political entities and ethical behavior as a general matter. There is support for these findings in political economy studies, but they provide no list of practical actions that would strengthen governance. There are few quick solutions to weak governance. Nevertheless, weak governance can no longer be thought of as exogenous—or something we have to accept. An expanded UPBEAT has the potential to strengthen the performance of utilities, especially when combined with the use and enforcement of lending instruments like "Performance for Results." But use of these instruments will require deeper and continuous engagement with relevant ministries and utility boards.

In summary, the literature leads us to conclude that an improved and expanded UPBEAT framework—from T&A to governance—would be beneficial. Given the specific governance challenges seen in the region's utilities, extending the scope of UPBEAT might be especially worthwhile. Possible approaches to collecting data for such an extension are discussed at the end of this paper.

### 3. OBJECTIVES, DATA, AND METHODOLOGY

The objectives of this paper are:

- To characterize the current state of T&A in the region's utilities using data collected through the UPBEAT data platform
- To discuss how T&A and broader governance reporting might support more effective sector reform—notably by making the case for placing greater emphasis on T&A

- To identify "quick wins" for utilities to improve T&A and facilitate reform.
- And, in light of the foregoing, to consider:
  - how the current methodology used to assess T&A in Sub-Saharan power utilities could be improved to sustain and expand the UPBEAT data platform
  - other investigative avenues using UPBEAT's data and approach
  - the merits and challenges of extending the approach beyond T&A to broader governance measures.

Over the 2016–18 reporting period, UPBEAT gathered data on 76 utilities, both public and private, in 45 countries across the entire value chain. In the process, it derived 23 T&A indicators for utilities with a distribution function and 21 for utilities with no distribution function. The full set of T&A indicators is shown in table 3.1. The 23 indicators are grouped into four categories:

- **Performance management and reporting.** The extent to which a framework exists to set and monitor expectations of performance by the utility and its staff (i.e., hold it accountable), and the extent to which the utility's performance is publicly reported (i.e., its transparency). (Ten indicators.)
- **Integrity and internal controls.** The existence of appropriate governance and internal control processes. (Six indicators.)
- **Capital market discipline.** The extent to which the utility is subject to reporting discipline through its participation in debt and/or equity markets. (Two indicators.)
- **Stakeholder relations.** The extent to which key stakeholder groups can find and access the information they might need to engage with the utility. (Five indicators for utilities with a distribution function; three for utilities without a distribution function.)

In UPBEAT, utilities themselves are classified along the value chain as vertically integrated utilities (VIUs, 39), generation utilities (9), transmission utilities (6), or distribution utilities (22),<sup>4</sup> as well as by their membership in each of the region's four power pools—Central African Power Pool (CAPP) (11 utilities), East Africa Power Pool (EAPP) (19 utilities), Southern African Power Pool (SAPP) (16 utilities), and West African Power Pool (WAPP) (30 utilities).<sup>5</sup>

**TABLE 3.1 Transparency and accountability indicators**

PERFORMANCE CATEGORY	APPLICABLE PARTS OF THE VALUE CHAIN	INDICATORS
Performance management and reporting	Generation, transmission, and distribution	Performance agreement with government or regulator is publicly available. Regulator publishes regular performance reports. Financial statements are published on utility's website. Annual report is published on utility's website. Financial statements consistent with the framework of the International Financial Reporting Standards or the Organization for the Harmonization of Business Law in Africa are independently audited. Audit opinion is not subject to qualification. Annual report covers actions that address cybersecurity. Up-to-date corporate strategy is publicly available. Annual report confirms that a performance management system in place Annual report includes relevant operational and financial key performance indicators.
Integrity and internal controls	Generation, transmission, and distribution	Annual report includes a governance section. Board is organized into subcommittees (including an audit committee), each with a charter outlined in the annual report. Annual report provides information on audit committee activities. Internal controls exist; an internal audit function reports directly to board. Vacancies are advertised on company website.* Utility uses eProcurement.*
Capital market discipline	Generation, transmission, and distribution	A portion of utility's shares are listed publicly. Utility maintains a credit rating.
Stakeholder relations	Distribution only	Utility's website provides information on connection procedures, tariff, and planned outages.* App or call center supports reporting of service interruptions and handles billing inquiries.*
	Generation, transmission, and distribution	Annual report includes corporate social responsibility narrative. Annual report includes environmental narrative. Annual report includes gender statistics.

Note: Indicators flagged with an asterisk (\*) are real-time and can be evaluated only for the current website, not for previous years.

UPBEAT looks at publicly reported T&A measures in annual reports and on websites. This makes data easy to collect, rendering independent validation unnecessary and eliminating subjectivity. The 23 indicators collected by UPBEAT are therefore binary yes/no indicators. Partial compliance is not reported—the data are either reported or not. “No” does not necessarily mean the data do not exist internally; “no” might mean a utility has chosen not to make the data public.

Two types of indicators were gathered from websites. One type was found in annual reports or financial statements published as attachments on a website; these can be assessed from 2016 to 2018. The other consists of four real-time indicators (asterisked\* in table 3.1, above), which can be assessed only from the current website. Two such indicators in the stakeholder relations category are tracked only for utilities with a distribution function.

Based on UPBEAT data, each utility is assigned a score based on the number of T&A indicators reported both by category and for the full indicator set for 2016–18. Each

utility gets a category score calculated as the percentage of indicators reported each year in that category; the denominator is the total number of indicators in the category. The total score is then calculated as the percentage of all indicators reported in each year, with a denominator of 23 for utilities with a distribution function and 21 for utilities with no such function.

These yearly indicators can then be averaged across 2016, 2017, and 2018 to calculate a *composite indicator*, a proxy measure for that utility's T&A across the three years—by category and for the full indicator set. Note that, to ease comparisons in calculating composite indicators, real-time website indicators were scored “yes” in 2016 and 2017 if they scored “yes” in 2018. All indicators were weighted equally in calculating composite scores.

Composite indicators can be further averaged across all utilities or any subset of utilities (by value chain type or power pool membership) to provide a proxy for overall T&A in terms of the average number of indicators reported

in 2016–18 across that set. The denominator is the number of utilities in each set.

The analysis below, unless otherwise noted, evaluates T&A in Sub-Saharan utilities based on their composite 2016–18 scores.

#### 4. ANALYSIS AND KEY FINDINGS

##### 4.1 Transparency and accountability by utility type

**Performance against T&A indicators is generally poor for all utilities in the data set.** No utility type has an average composite score for 2016–18 that exceeds 35 percent across any indicator category; most have scores in the mid- to high 20s (figure 4.1). This is not to say there are no high-scoring utilities (see section 4.2), but there is ample room for aggregate improvement.

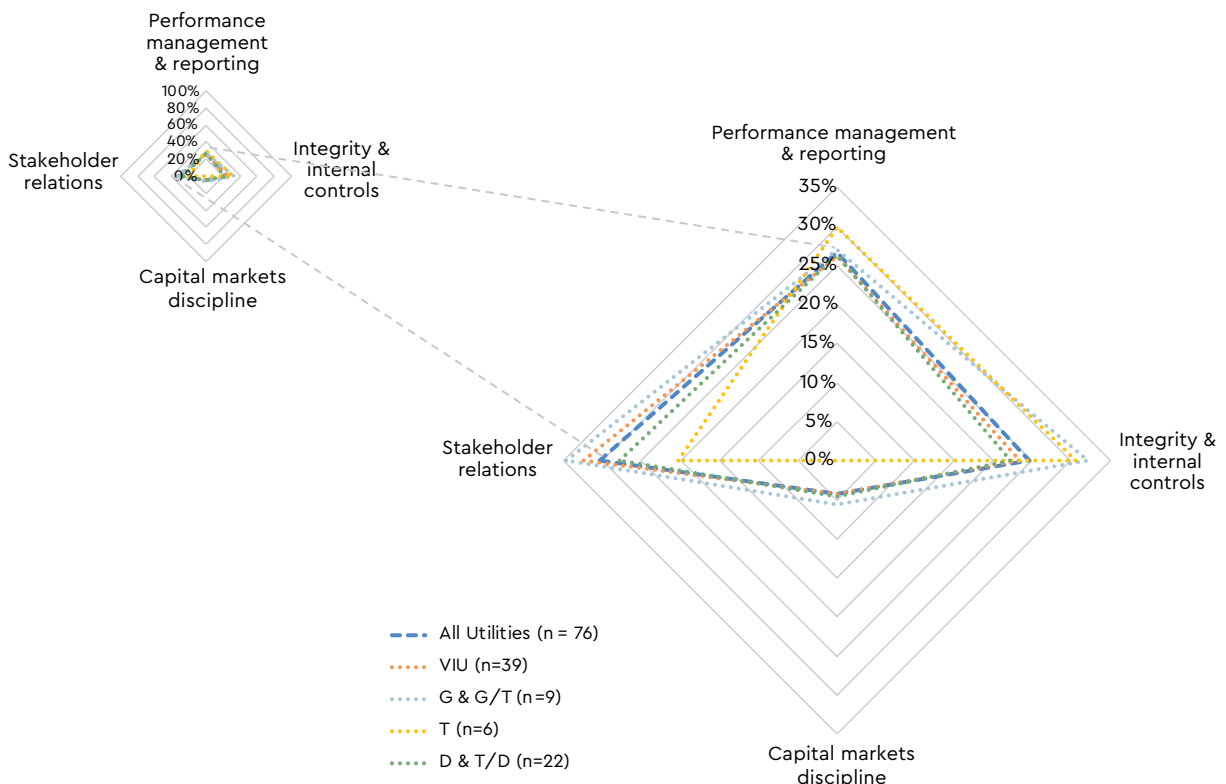
Notable differences in T&A can be seen across the utility value chain, but these occur more in specific categories than for overall performance. Transmission-only utilities in UPBEAT are much stronger in the category of performance management and reporting. Like utilities with a generation function, they perform best on integrity and

internal controls. Transmission-only utilities are weakest on reporting indicators of stakeholder relations, which may not be surprising, as their primary customers are generation utilities and large off-takers, where one-on-one communication is easy. Generation utilities are best at stakeholder relations. On capital market discipline, not one transmission-only utility covered by UPBEAT was listed or had a credit rating.

There are particular concerns around utilities with a distribution function in two categories: integrity and internal controls and stakeholder relations. Distribution utilities and VIUs perform least well on reporting on integrity and internal controls—a disturbing fact given that the distribution business relies on robust billing (which minimizes nontechnical losses) and cash collection to drive financial performance along the entire value chain. Whereas VIUs are almost as strong as generation utilities on stakeholder relations, distribution-only utilities are notably weaker.

The low scores on capital market discipline reflect the dearth of capital markets in Africa. Yet the few utilities subject to capital market discipline are among the most transparent and accountable in Sub-Saharan Africa. Particularly notable are Kengen and KPLC in Kenya, Eskom in

**FIGURE 4.1 Composite scores by category and utility type, 2016–18**



South Africa, Umeme in Uganda, Nampower in Namibia, and, to a lesser extent, Senelec in Senegal. These same utilities also tend to show the best operational and financial performance, confirming the generally held view that capital market discipline is a key driver of good performance.

While the primary intent of this paper is to describe the status of T&A among the region's utilities based on their composite 2016–18 scores (or the percentage of indicators reported), some interesting trends and details emerge if one examines how many utilities (or what percentage of the total sample) report specific T&A indicators. In the category of **performance management and reporting**, the three core indicators are also the most widely reported. Those indicators are (i) independently audited<sup>6</sup> financial statements; (ii) on-time publication of financial statements; and (iii) audits free of qualifications. Ample room remains, however, for improvement. Only 45 percent (34 of 76) of utilities were independently audited in 2018, and only slightly more than two-thirds of them achieved unqualified audits. Only 25 percent (19 of 76) of utilities published financial statements within one year of year-end close. Compared with 2016, the three core indicators in 2018 show notable declines, most likely due to delays in year-end closing or appointment of the auditor.

Robust accountability frameworks are uncommon, with only 25 percent (19 of 76) of utilities showing evidence of reporting regularly to the regulator in 2018, and only 16–17 percent (12–13 of 76) reporting that they operate under a performance agreement with government or have an internal performance management system in place. Cybersecurity policies are reported in just 5 percent (4 of 76) of cases. Similarly, only 20 percent (15 of 76) disclose their corporate strategies on their websites and only 26 percent (20 of 76) publish key performance indicators (KPIs).

In the category of **integrity and internal controls** in 2018, only 28 percent (21 of 76) report having internal audits and controls in place. Only 13–17 percent (10–13 of 76) report governance activities at the board level, board subcommittee structures, or audit committee activities. While 50 percent (38 of 76) use their websites for recruiting, only 14 percent (11 of 76) use eProcurement.

In the **stakeholder relations** category in 2018, only 44–49 percent (27–30 of 61) of utilities with a distribution function reported adequate customer outreach and communications. This indicator is composed of (i) the posting on company websites of comprehensive information on customer processes, tariffs, connection procedures, and other useful information, and (ii) the provision of customer communication methods other than basic call centers, such as SMS messaging capability, a dedicated mobile app, or a web portal dedicated to customer service. Annual reports provide narratives on environmental performance and corporate social responsibility in just 22 percent (17 of 76) of all cases, and, for gender, only 14 percent (11 of 76).

#### 4.2 High- and low-performing utilities

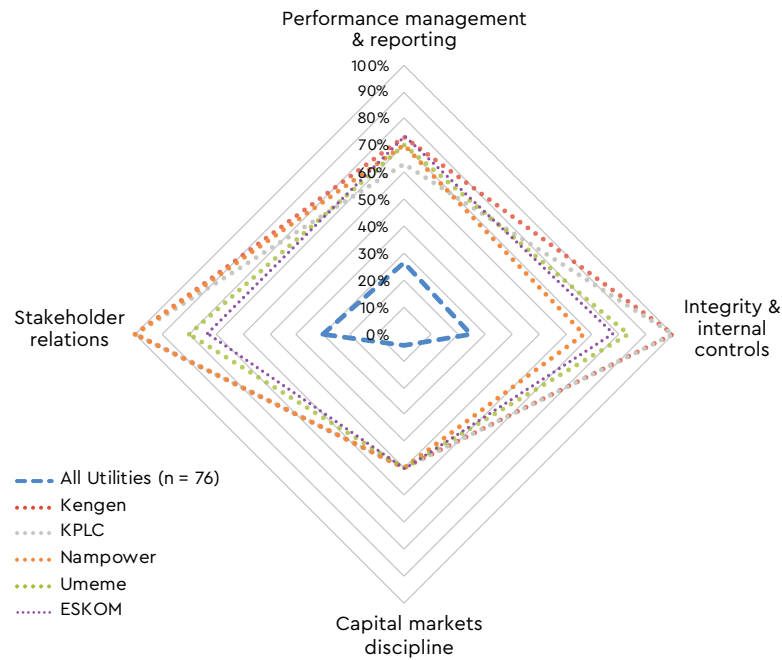
The top utilities in terms of T&A, measured by their 2016–18 overall composite score, are shown in figure 4.2.

These utilities are:

- **Kengen in Kenya, scoring 82.5 percent (17.3/21 indicators).** At 49.9 percent, Kengen is listed on the Kenya Stock Exchange and therefore follows governance standards set by the Kenyan Capital Markets Authority. In addition, it must comply with the comprehensive and practical Mwongozo code of governance, which was developed by the Public Service Commission for all state-owned enterprises.
- **KPLC in Kenya, scoring 79.7 percent (18.3/23 indicators),** operates under the same accountability standards as Kengen. Note, however, that its audits have been qualified from 2016 to 2018.
- **Nampower in Namibia, scoring 73.9 percent (17.0/23 indicators),** maintains an international credit rating.
- **Umeme in Uganda, also scoring 73.9 percent (17.0/23 indicators),** operates under a 20-year concession agreement (a form of performance agreement) signed in 2005. It is listed on the stock exchanges of Uganda and Kenya.
- **Eskom in South Africa, scoring 72.5 percent (16.7/23),** maintains an international credit rating. It follows the King IV code of corporate governance and practices integrated reporting. (These are widely regarded as international best practice but require substantial internal resource commitments, more so than the Mwon-



**FIGURE 4.2. Composite scores for high performers, 2016–18**



gozo code.) Eskom also operates under a performance agreement with the Ministry of Public Enterprises. Its audits from 2016 to 2018 contained qualifications.

These utilities are among the highest-performing in both operations and finance. Again, this suggests that a robust governance code, capital market discipline, and a performance agreement with government can, if effectively monitored, drive better performance. A positive feedback loop is probably at work here: good reporting drives better performance, which encourages still better reporting, and so on.

On the other hand, 16 of the 76 (21 percent) utilities covered by UPBEAT scored zero from 2016 to 2018 in their composite scores in all categories (table 4.1), further underlining the poor performance on T&A in the region and contributing to the low average scores overall. Eight of these are VIUs, and another four are distribution utilities. Roughly half are in English-speaking countries; the other half in countries mostly speaking French, Arabic or another language.

**TABLE 4.1 UPBEAT utilities with a composite score of zero, 2016–18**

Régie de Production et de Distribution d'Eau et d'Electricité (REGIDESO)	Gestion de l'Eau et de l'Electricité aux Comoros (MAMWE)
Electricité d'Anjouan (EDA)	Enugu Electricity Distribution Company (EEDC)
Benin Electricity Distribution Company (BEDC)	Ibadan Electricity Distribution Company (IBEDC)
Société des Energies de Côte d'Ivoire (CI-ENERGIES)	Ikeja Electricity Distribution Company (Ikeja)
Sociedad de Electricidad de Guinea Ecuatorial (SEGESA)	Electricity Generation and Transmission Company (EGTC)
Eritrean Electricity Corporation (EEC)	Sudanese Electricity Transmission Company (SETC)
Electricidade e Aguas da Guiné-Bissau (EAGB)	Sudanese Thermal Power Generating Company (STPGC)
Société Mauritanienne d'Électricité (SOMELEC)	Zimbabwe Electricity Transmission and Distribution Company (ZETDC)

### 4.3 T&A by power pool membership

T&A performance by power pool, as measured by an average composite score of the member utilities over 2016–18, appears in figure 4.3. SAPP members perform much better in all categories, except capital market discipline, where EAPP has a slightly higher percentage of listed or credit-rated members. EAPP comes in second on all other categories. Both SAPP and EAPP perform much better on all components than the average of all utilities, suggesting that membership in a well-governed power pool encourages T&A, just as strong governance frameworks and capital market discipline do. WAPP and CAPP members perform less well than the average of all utilities, suggesting an opportunity to improve the governance and T&A expectations in those pools. When compared with CAPP, members of WAPP are stronger on stakeholder relations.

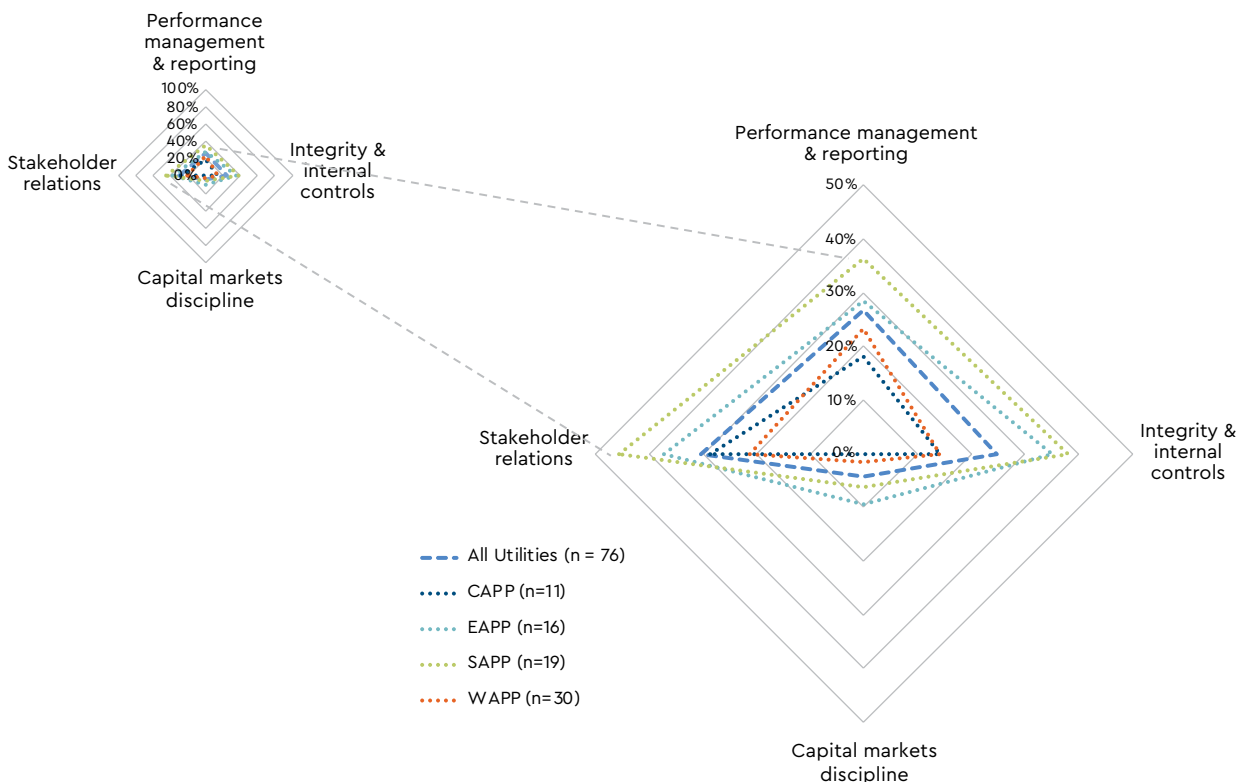
### 4.4 T&A in English- vs. French-speaking utilities

Comparisons of the composite scores of utilities in English- and French-speaking countries (excluding for the moment those speak Portuguese or Spanish) deliver interesting results. French-speaking utilities, in general, earn lower performance scores than English-speaking

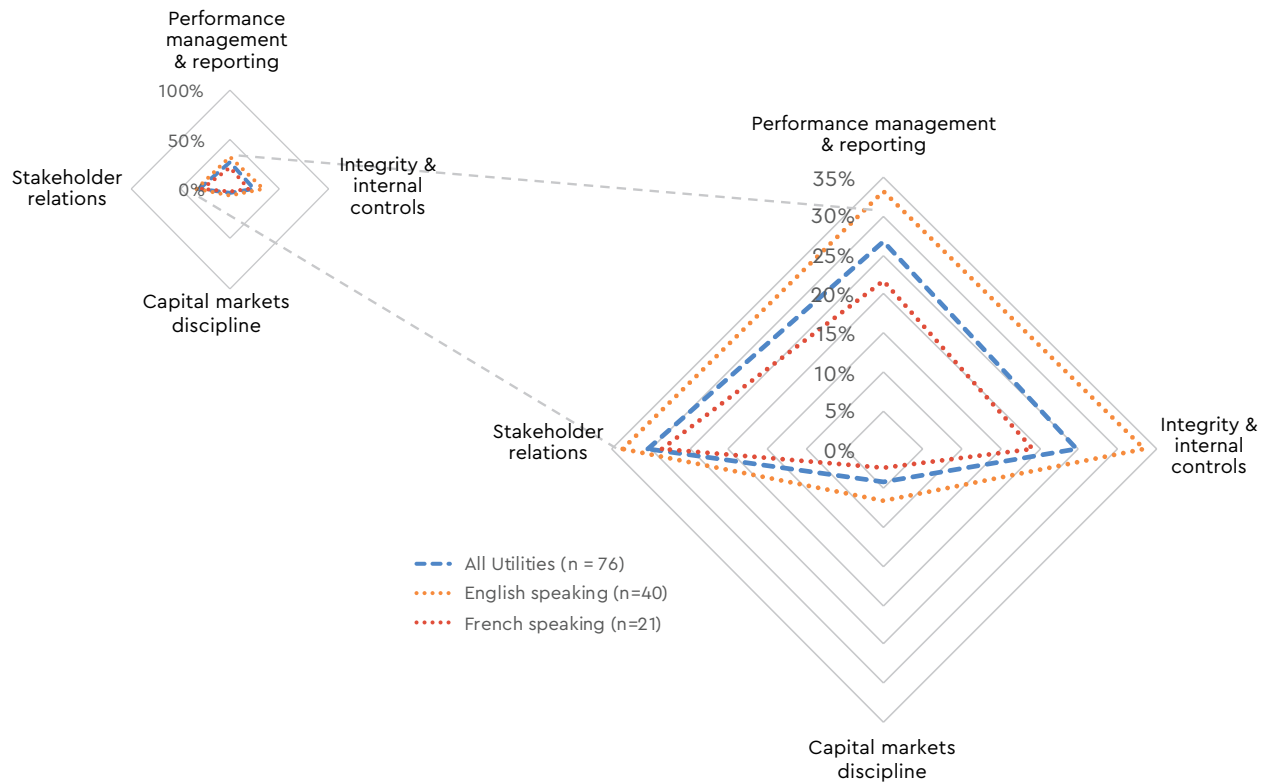
utilities (figure 4.4). English-speaking utilities outperform French-speaking ones, not only overall, but also—and significantly—in the categories of performance management and reporting and integrity and internal controls. The gap is smallest in stakeholder relations, driven by better gender reporting. The highest-scoring French-speaking utility is CEB in Mauritius, scoring 70 percent on its 2016–18 composite indicators. Kengen and KPLC are the highest-scoring English-speaking utilities. These Kenyan utilities are subject to capital market discipline and operate under the local Mwongozo governance code that is applied to all SOEs.

Most of the region's French-speaking countries are signatories to the Organization for the Harmonization of Business Law in Africa (OHADA), which seeks to attract foreign investment by harmonizing commercial legislation. OHADA's reporting requirements, still relatively lax, might explain the apparent underperformance of utilities in French-speaking Sub-Saharan Africa. More robust are utilities governed either by the King IV code, the "integrated reporting" approach used in South Africa, or by Kenya's Mwongozo code. OHADA's provisions on corporate governance were, however, strengthened in 2014

FIGURE 4.3 Composite scores, by category and power pool, 2016–18



**FIGURE 4.4 Composite scores by category, English- vs. French-speaking utilities, 2016–18**



for public limited companies; Senegal's Senelec is the largest of these. The provisions clarified the roles of directors and encouraged board committees. Conflicts of interest were addressed, along with director remuneration and the need for auditors to be present at all board meetings. A report on board activities must also be presented at the annual general meeting, though not explicitly in the annual report. But the 2014 changes did little to raise standards for external reporting.

### 5. QUICK WINS ON T&A

As the analysis above shows, there is a clear and substantial opportunity to improve T&A across the region's utilities. If a broader range of stakeholders, beyond just owners, can see the performance framework holding the utility accountable—while reporting into that framework in a robust and timely manner—major improvements in T&A will result.

The simplest quick win is for utilities to publish KPIs on a quarterly basis. Ideally, with the aid of an industry association, the utilities could establish such a set of KPIs. Obvious key indicators include data on losses and col-

lections, cost recovery (operational and full), tariffs, and reliability. Utilities already monitor these kinds of KPIs for internal management reporting. Posting them on their website—even if qualified as unaudited—is the logical next step.

If a performance framework exists—whether with a government owner or regulator (where performance expectations are implicit in a tariff ruling)—a parallel quick win could be achieved by posting the framework on the utility's website. If no external framework exists, publishing the utility's corporate strategy is a good proxy, as it reveals the performance expectations of board and management. KPIs and the performance framework should be carefully aligned.

The next step is more challenging: timely year-end closing and publication of audited financials and annual reports. Six months after year-end is a reasonable expectation. This step is more challenging because it likely needs the active cooperation of the state auditor in the form of timely appointment of a quality independent external auditor, one ideally adhering to the International Financial Reporting Standards (IFRS). Appointments should be made well before year-end, and auditor turn-

over should be limited so that auditors hold office long enough to understand the utility's challenges and build on that knowledge over several years. To prepare incoming auditors, utilities should try to build handover periods into these transitions. A qualified audit result should not delay any publication of financial statements.

Another quick win could be achieved by providing more information on utility websites and making them easier to find. For utilities with a distribution function, obvious examples include greater attention to customer communication and expanded channels for service interruptions and follow-up. Greater use of eProcurement—fully integrated, ideally, with the utility's information systems—would improve transparency in procurement across all types of utilities.

Why do these quick wins matter? In discussing the implementation of power sector reform, Foster and Rana (2020) highlight the following challenges:

- The challenges of context, that is, the political economy
- The need to identify reform champions (and to delegate responsibility to regulators), and
- Full stakeholder alignment—first through outreach and ultimately through legislative support.

The authors highlight the region's weak appetite for reform, noting the mixed performance of management contracts, reversals of privatization, a lack of independent regulation, and failures to counter stakeholder opposition. While conceding that "donors play an important role in introducing reform ideas and supporting their implementation," the authors observe that "they do not seem to have much influence on a country's overall reform trajectory, which is rather shaped by local political factors." Higher levels of T&A, while certainly not the complete solution, would encourage greater stakeholder pressure for reform, making political resistance harder. If regular performance reports were visible to all stakeholders, one would see more actively engaged consumers and the formation of more consumer associations, making change harder to resist at the political level. The studies referenced above highlight the role of internal governance in driving good T&A. But it is harder to improve these internal factors directly. In other words, an "outside in" approach—starting from T&A as desired attributes—is likely to be more successful than an "inside

out" tactic that focuses on internal governance. This does not negate, of course, the value of mastering the internal governance variables.

The UPBEAT data platform can help implement these quick wins and track their sustainability. To support better public reporting, UPBEAT establishes reporting benchmarks for T&A that can be compared across utilities. This approach should encourage best practices in robust and timely reporting, which in turn should better inform decision making by policy makers, financiers, and private sector stakeholders. UPBEAT also facilitates diagnosis of operating and financial performance by the utilities themselves and supports their improvement. If fully embraced, UPBEAT might also enable the setting of standard reporting expectations and templates across Sub-Saharan Africa.

## 6. HOW TO IMPROVE T&A ASSESSMENT AND EXPAND THE UPBEAT APPROACH

This paper uses T&A data collected by UPBEAT to assess power utilities in the region. It does this by calculating composite scores for each utility from 2016 to 2018. The UPBEAT approach relies on publicly available data, making it easy to implement. It also requires no independent validation and is not subjective. But it has important limitations:

- It may underestimate the actual effect of some of the T&A indicators. For example, internal audits and controls or performance management systems may exist but not be deemed important enough to report publicly.
- It does not consider the relative importance of different indicators—all indicators are weighted equally.
- Compliance is binary, and some indicators need more definition. What, for example, is a reasonable expectation for years of KPI data? How much detail on governance should the annual report include?

By addressing these limitations, the UPBEAT data platform could improve the methodology for calculating composite scores.

The first limitation can be addressed with clear reporting expectations, including templates for annual report and website content, setting expectations around timeliness,

and seeding these expectations throughout all utilities in the region. This effort will require industry associations to fully embrace the project and to establish and exploit networks of relevant, committed contacts within utilities.<sup>7</sup> This will also build sustainable capacity through good reporting practices.

Regarding the second limitation, some indicators are more important than others (notably, the three core indicators of performance management and reporting) and could be weighted accordingly. Still, the very fact that they can be reported individually removes the need to weight them. Moreover, weighting would be subjective. There is, however, value in prioritizing improved reporting on the more important indicators, such as independent audits, posting of financial statements and annual reports, and audits free of qualifications. Putting this priority into effect would depend on finding workable solutions to problems like timely financial close and appointment of qualified auditors as discussed in the previous section.

Equal weighting ensures that accountability frameworks (from performance contracts to internal performance management systems) are valued as much transparent reporting. Accountability frameworks drive performance—financial reporting keeps score. Financial reporting is a result, and not a driver, as are accountability frameworks. While transparent reporting is important to external stakeholders, emphasizing accountability drivers is important if the ultimate objective is to improve utility performance.

On the third limitation, UPBEAT needs to provide clearer definitions of compliance. Certain indicators might also be decomposed into, say, a 1–4 scale for degrees of compliance, with each point weighted 0.25. This is the approach used in the RISE database. For example, on the indicator, “annual report includes relevant operational and financial KPIs,” a utility might score 0.25 for reporting some KPIs year on year, 0.5 for reporting a (predefined) comprehensive set year on year, 0.75 for reporting at least five years of the comprehensive set, and 1.0 if commentary is included. Tight, detailed definitions of each indicator (and degrees of conformity) would be necessary in both cases. Expectations about timely reporting (whether publication of audited financial statements and annual reports or website reporting of KPIs) should also be specified.

To deepen knowledge about T&A in the region's power utilities, researchers could use the key findings presented above to investigate the following five aspects of the power sector in Sub-Saharan Africa. They could do this by:

- Comparing the frameworks of the International Financial Reporting Standards and OHADA as they affect T&A—detailing their comparisons of the reporting and governance frameworks in use (e.g., the King IV or Mwongozo code)
- Correlating utility T&A findings with extant SOE T&A frameworks, asking whether utilities are treated the same as other SOEs
- Correlating utility T&A findings with relevant, country-level T&A frameworks
- Investigating differences in T&A in public and private utilities in Sub-Saharan Africa, and
- Comparing results with the power sector reform scores in Foster and Rana (2020).

The first of these five comparisons should produce a better understanding of the differences between English- and French-speaking utilities and the merits of the various accounting and reporting governance frameworks. The other four could initially be pursued with the existing UPBEAT approach and then be folded into an expanded framework, as described above.

What possible extensions of UPBEAT T&A data collection—primarily the utility reports—should be included in calculating of T&A composite scores? Two dimensions—including other, broader governance measures and exogenous factors (regulation, public service obligations, and contracting with independent power producers)—could be considered.

As noted in the introduction and literature review (sections 1 and 2), governance is much more than T&A. Foster and Rana (2020) offer a comprehensive model in the form of their Utility Governance Index, which enables researchers to explore the effects of board independence, quality, and process. The authors suggest that these factors are much less important in driving performance than financial discipline and human resource management. Whether that conclusion holds for Sub-Saharan Africa would need to be proven, especially given that their Sub-Saharan sample

comprised only four relatively high-performing utilities. Testing the hypothesis of Foster and Rana would require the expansion of the UPBEAT approach and the alignment of indicator definitions. On the one hand, there are benefits to building on an existing approach rather than pursuing parallel measurement frameworks. On the other hand, there are much bigger challenges in accurate data collection and validation. A first step would be the preparation of a detailed questionnaire, which utilities could self-administer.<sup>8</sup> Follow-on steps would include phone interviews or site validation and collection of supporting documents, an approach used by Foster and Rana.

While some questions ask for objective data (e.g., board composition by type of director), others, like board process and autonomy, would require 1–4 compliance scales, as discussed above. Again, the opportunity is to align with and/or improve the Utility Governance Index approach of Foster and Rana. Sustaining this approach through a local industry association is of course more challenging. An even better approach is a one-day governance audit conducted by professionals,<sup>9</sup> but again this makes it harder to sustain a local approach.

Utility performance is affected by several important exogenous variables, particularly in Sub-Saharan Africa. Key among these are independent and transparent setting of cost-recovery tariffs, explicit recognition of public service objectives like rural electrification that require subsidies,

and transparent procurement of contracts with independent power producers. The latter is an emerging problem that is very significantly affecting the performance of many of the region's utilities. Without these exogenous transparencies, it is hard for a utility to perform well financially. Again, Foster and Rana (2020) include at least the first two variables. Inclusion of an indicator that monitors whether the utility considers and attempts to mitigate these risks through a framework that manages enterprise risk is another possibility.

## 7. CONCLUSIONS

This paper calculates composite T&A scores for Sub-Saharan utilities using UPBEAT's groundbreaking data platform, which promotes understanding and diagnosis, and benchmarks utility performance across financial, operational, and T&A dimensions. The UPBEAT composite scores for 2016–18 demonstrate the shortcomings in T&A across multiple dimensions. There are opportunities for utilities to score quick wins in advancing the T&A agenda by working with local industry associations. Such collaboration has the potential to catalyze change and improve utilities, sustaining reform in Sub-Saharan Africa.

Suggestions for further consideration include improving UPBEAT's existing approach and extending its scope to assess broader governance measures.

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**Endnotes**

1. <https://info.worldbank.org/governance/wgi/>.
2. SAIDI is the System Average Interruption Duration Index; SAIFI is the System Average Interruption Frequency Index.
3. KPLC in Kenya, Senelec in Senegal, Tanesco in Tanzania, and Umeme in Uganda
4. Two utilities with both generation and transmission functions have been grouped with the generation utilities, and two with both transmission and distribution functions have been grouped with distribution utilities.
5. Some utilities are in multiple power pools (six utilities); others do not belong to any pool (seven utilities).
6. "Independent audit" is defined as an audit by an internationally recognized firm, a local firm appointed by the state auditor, or the state auditor itself.
7. The Pacific Power Association in the Pacific islands has seen success with this approach.
8. This is also the approach used, for example, by the Pacific Power Association.
9. This was successfully trialed and proved effective in the Philippines Electric Cooperatives.

