EXPECTATIONS OF POWER: THE POLITICS OF STATE-BUILDING AND ACCESS TO ELECTRICITY PROVISION IN GHANA AND UGANDA

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Abstract

Why do some states provide access to a key public good, electricity, to their citizens, while others do not? We examine this question by explaining the remarkable differences in the level of access to electricity between Ghana and Uganda. Today, Ghana is ranked second in its electrification rate while Uganda is placed among the lowest on the African continent. The comparison of these two cases is valuable because these countries were at roughly similar starting points prior to British colonial rule; both countries shared similar centralised precolonial state capacity and the potential resource endowment for large-scale hydropower. We argue that divergent political histories of state building in the energy sector in the two countries created contrasting citizen expectations around the

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public provision of electric power over time. The paper draws on archival sources, policy documents, newspaper coverage, and interviews with donors, politicians, policymakers, NGO leaders, business people, and citizens to analyse the differences in development paths. We find evidence for a persistent difference in the role of the state over time in the two cases. Despite similar pressures from donors, we hypothesize that the formulation of the post-independence social contract has long legacies for contemporary citizen expectations and the implementation of current policy reforms.

Keywords: Ghana; Uganda; Electricity; State building; Energy sector.

1. Introduction

The African continent as a whole suffers from the worst level of energy poverty in the world (IEA, 2014; 2011), a situation the World Bank President described vividly as "energy apartheid" (Friedman, 2014). Yet examining the continent as a whole belies the fact that individual African countries vary considerably in their level of electricity access. Where we may have grown accustomed to claims of South African exceptionalism (Lazarus, 2004), it may surprise some to learn that Ghana ranks second to South Africa in electricity access, with 72 per cent of households having a grid connection (World Bank, 2015). This is not the usual order of exceptionalism that normally includes diamond-rich and sparsely populated Botswana, oil-wealthy Gabon, or tiny island nations such as Mauritius. By contrast, Uganda, with exceptional national economic growth, has one of the lowest levels of electricity access, with approximately 18 per cent of households accessing the grid (World Bank, 2015).

This contrast in national development outcomes between Uganda and Ghana are important to examine because both were at similar starting points in the days of British colonial rule. Both countries shared highly centralised precolonial states that opposed or negotiated the imposition of British colonialism, the Ashanti kingdom in Ghana (Wilks, 1975), and the Buganda kingdom in Uganda (Karigure, 1980). Both countries also had similar resource endowments with major rivers promising the potential for large-scale hydro-power electricity generation.

Yet, in Ghana, the post-independent state immediately developed electric power generation capacity and continues to expand a national electric grid with the goal of universal electricity access for its citizens. Meanwhile, in Uganda, universal electricity access has never been at the top of the government's policy agenda, and the majority of its citizens are without electricity. Although independent Uganda started with higher installed capacity to generate electricity than Ghana, it has been very slow to expand generation resources developed at the end of the colonial period. This paper asks: why do two similar states achieve such different levels of access to electricity over time?

We argue that divergent political histories of nationalism and state building in the two countries created contrasting citizen expectations around the public provision of electric power over time. Thus, in Ghana, Nkrumah led a nationalist struggle for independence and then embarked on a massive state-building effort to provide electric power for industrialisation. Ghanaians subsequently developed a strong expectation that the state should provide electricity as a right of democratic citizenship in the newly independent nation (MacLean et al., 2016). In contrast, in Uganda, although the British had earlier initiated an explicitly pan-colonial project to generate hydro-power for their colonies from Lake Victoria to Egypt along the Nile, the post-colonial Ugandan leaders did not prioritize electricity access amidst conflict, and later subsequent reforms to the sector. Whereas Ghanaian leaders explicitly used the provision of electricity as a nation-building project, Ugandan leaders inherited and largely followed the network plans of the colonial state, and then later remained divided through civil conflict and afterwards, about whether the state or private companies should provide electricity. As a result, Ugandan citizens possessed a much weaker expectation about the state's role in providing electricity to the people.

These early post-independence electricity policies created path dependencies in both countries (Pierson, 2000). Even after both countries experienced extended periods of political instability and economic decline throughout the 1970s, and were similarly pressured by the World Bank/IMF to adopt neoliberal reforms, the authoritarian leaders of the 1980s pursued different kinds of campaigns at the grassroots. In Ghana, Rawlings advocated the expansion of self-help electrification, and, in Uganda, Museveni focused on large hydroelectric dams for industrialization (Gore, 2009). These differences in the expectations of power have been further strengthened by the consolidation of the democratic regime in Ghana as compared to the continuation of electoral authoritarianism in Uganda.

Understanding the causes for the variation in the provision of electricity is important for several reasons. First, electricity is a key public good that facilitates many kinds of economic, social and even political development (UN, 2010, 2015; Cook 2011). Indeed, some scholars (Min, 2015) analyze the patterns of electric light viewed from satellites as a better indicator of the vitality of a national economy than national statistics on income and economic growth, as the latter are often unreliable and inconsistent (Jerven, 2013). Second, many donors are currently investing billions of dollars in attempting to expand the infrastructure for electricity, notably encouraging African states to leapfrog older fossil fuel technologies in order to promote newer renewable energy solutions (Baker, Newell and Philipps, 2014; Zerriffi and Wilson, 2010). Knowing more about why states have or have not achieved or attempted national electrification in the past may help direct these new donor investments. Finally, many politicians across Africa face mounting citizen demands for greater amounts of more reliable electricity. Even in Ghana, with its high rates of electrification, the 2016 presidential election witnessed the incumbent President Mahama desperately trying to transform his reputation as "Mr. Power Cut"

by promising voters more streetlights and electricity infrastructure if elected (Arthur, 2016). His inability to address electricity issues may be a reason he was unsuccessful at the polls. In contrast, in Uganda, even amidst some of the lowest levels of access to electrification in the world for decades, President Museveni has continued to win national elections, thus suggesting that voters have separated presidential support from performance in electricity service provision.

In addition to developing essential policy implications, this study's analysis makes a significant theoretical contribution to the social science literature on the political economy of development. We highlight how the historical process of state building is meaningfully linked to the formulation of national identities and notions of citizenship. By bridging the literature on state formation, public service provision, and policy feedback, we are able to theorize how the social contract is negotiated and how citizen expectations of the state are developed in relatively weak and newly democratic states.

2. Theoretical explanations for differences in access to electricity

We turn now to review the potential theoretical explanations for the wide differences in electricity access between Ghana and Uganda. Here, we first explain that although variations in geographic, economic, donor, and ethnic culture are plausible theoretical explanations in principle, they are insufficient causes in the cases of Ghana and Uganda. Instead, we argue, national political factors are the key explanatory factor in these countries' electrification rate differences.

One possible explanation for divergent development outcomes is geography. In this case, it may be that differing resource endowments explain the divergent electricity access outcomes. African countries vary in the extent of coal, natural gas or other fossil fuels available domestically to fuel local power plants (British Petroleum, 2013). African countries also differ in their hydrological endowment for hydro-power (UNEP, 2010). Moreover, low population density in large territories (Herbst, 2000) might make electricity provision too expensive to provide to remote, rural communities (Barfour, 2013; Brass et al. 2012; Zerriffi, 2010). Yet, if we compare the two countries on these geographic factors, we might expect Uganda to achieve a *higher* electrification rate than Ghana because of its great hydro-power potential, smaller land base, and higher population density.[1]

A second set of factors to consider is whether differences in the economy shape divergent outcomes. For example, the national level of economic development might shape the level of infrastructure provision. On the supply-of-electricity side, weak economies may not contain or facilitate adequate access to capital, which is needed to construct electricity infrastructure (Barnes and Floor, 1996). At the same time, on the demand side, endemic poverty constricts consumer demand for electricity provision

(Karekezi, 2002). Although these are logical explanations for a lack of electrification in general, they do not account for the differences between Ghana and Uganda. Both countries shared a similar economic base at independence, and trends in economic growth have been relatively comparable in the ensuing decades. Both countries experienced extensive poverty at independence and were characterized as low-income countries by the World Bank until 2011.[2] Similarly, both economies stagnated to the point of near collapse during the 1970s when they were destabilized by successive military regimes (Austin and Luckham, 1975) and, particularly acute in the case of Uganda, widespread civil conflict (Mugaju, 2000). In more recent years, economic growth and increased demand for electricity have occurred in both countries. Indeed, in a desperate attempt to meet the growing demand, the Ugandan government spent a large percentage of the national budget on emergency heavy fuel generation and subsidizing electricity tariffs. Even with these subsidies, the tariff was one of the highest in the world (Monitor, 2006). These similarities in economic development are illustrated in the countries' similar rates of cell phone usage. Both Ghana and Uganda have witnessed tremendous growth in cell phone coverage, increasing from roughly 10 per cent cell phone ownership in 2002 to over 63 per cent and 83 per cent ownership in Uganda and Ghana, respectively, by 2014 (Pew Research Center, 2015). If economic development were the primary driver of electricity infrastructure, we would expect electrification rates to more closely resemble cell phone rates.

A related and plausible economic theory holds that differences in these countries' integration into the international economy explains varying access rates. One possible account is that greater proximity to international trade routes drove the development of electricity provision in Ghana as compared to Uganda. With its long coastline along the Gulf of Guinea, Ghana had participated heavily in the export of slaves and gold with European countries since the 1400s.[3] In contrast, Uganda was landlocked and more difficult to reach; the country remained relatively isolated for a longer period and international trade was on a smaller scale, exporting ivory and slaves in the mid-1800s through Arab traders from the east and Egyptian traders from the north. Here again, however, proximity to international trade routes does not hold sufficient explanatory power. Both countries have historically relied on domestic hydroelectric dams for power, reducing the relationship between international trade and electricity development. Moreover, in recent years, trade in oil and natural gas has been less reliable in West Africa than East Africa, primarily because Nigeria, the largest oil producer in West Africa, has experienced political instability that has disrupted Ghana's ability to import oil for its thermal power plants.

An additional economic explanation from the more contemporary period after WWII is that a variation in external donor policy or international financial support may have spurred the differences in the level of electricity provision.[4] Yet, we see that in the 1950s and 1960s around the time of independence, both Ghana and Uganda were offered significant international financial capital from multilateral and bilateral donors to

construct hydro-dams. More recently in the 1980s until today, both Ghana and Uganda have received significant donor lending to expand infrastructure, and both have been considered "darlings" of the aid community because of their relative acceptance of liberalization (Adam and Gunning, 2002, Zimmerman and Drechsler, 2007). For example, in 2013, both countries were designated as priority targets for lending in USAID's Power Africa programme.[5]

Some scholars of African political economy focus on ethnicity as a third driving force for outcomes, particularly in the extent of public service provision. Habyrimana et al. (2007) argue that ethnic diversity undermines service provision because diverse cultural norms and institutions may undermine cooperation across groups. Baldwin and Huber (2010) counter that it is inequality between groups, not ethnic fractionalization itself, that undermines service provision. Yet, both Ghana and Uganda are multi-ethnic nations with considerable ethnic fragmentation (Posner, 2004). While ethnic politics may have shaped the specific, local-level placement of transmission lines in Ghana (Briggs, 2012), ethnicity does not appear to have played a significant role in the overall level of electrification. Likewise, historic trading and production centers were prioritized for electrification in Uganda, unrelated to ethnicity (Gore, 2009).

Rather than looking to geography, the economy, or ethnic culture, we emphasize the importance of a fourth variable: politics. Our study is not the first to posit significant links between politics and public service provision. Scholars of African politics have long argued that public goods are often distributed for political gain (Kramon and Posner, 2013; Reidl, 2014; LeBas, 2011). In recent years, however, a growing number of scholars have shifted from focusing solely on clientelism as the dominant political strategy for public goods provision, and exploring more nuanced relationships between citizens, politicians, and public goods provision in African democracies. Politicians and party officials sometimes use public goods to reward loyal voters (Reidl, 2014; LeBas, 2011), but particularly in stable democracies like Ghana, studies show that public officials may distribute goods to induce voter turnout or to enhance welfare by providing goods where they are needed most (Brass et al. n.d.). Others have argued that the type of public goods matters, and that democratic regimes may be particularly likely to invest in infrastructure in response to citizens' demands (Kramon and Posner, 2013).

The politics of attribution is also relevant, and scholars have begun to explore how service provision shapes citizens' attitudes toward the state and specific state actors. Bodea and LeBas (2014), for example, find that Lagosian citizens are more likely to pay taxes when they receive services from the state. Bodea and Lebas explicitly argue that the state strengthens the social contract – in which citizens give up some of their freedoms in exchange for security and services from the state – when they provide services to their citizens. Both Brass (2016) and Hern (2016), moreover, find that receiving services – even from non-state actors – can improve citizen perceptions of state legitimacy or their level of participation in politics. Harding and Stasavage (2014) find that when service provision is clearly connected to an executive's actions, citizens are particularly likely

to attribute services to the ruling party and incorporate these attitudes in their voting behaviors. Brass (2016) notes that politicians often claim credit, including for services they had no part in providing, in order to reap such political benefits.

We explore these relationships related to the social contract by jointly examining the history of state building and the contemporary quality of the democratic regime. We draw on literature that has demonstrated how the colonial approach to state formation produces long legacies for the political economy (MacLean, 2010; Lange, 2009; Mamdani ,1996; Ekeh, 1975). Even though both Ghana and Uganda were former British colonies, the experience of colonialism differed in significant ways on the ground (Lange, 2009), spurring a more nationalist state-building effort and the development of stronger expectations of citizenship in Ghana than in Uganda. Specifically, independence movements and immediate post-independence efforts made the provision of electricity by the state an explicit part of the social contract in Ghana, whereas the Ugandan strategy did not. As a result, Ghanaian expectations of provision and citizenship started relatively high, and have been further reinforced by the greater consolidation of democracy in Ghana than in Uganda. Where Ghana has a highly competitive and well-institutionalized party system (Riedl, 2016) with a vibrant civil society and free media (Arthur, 2010), Uganda's opposition parties have been weak and poorly organized since 1986 while the Museveni government has attempted to coopt civil society (Tripp, 2001) and intimidate the press (Kayanja 2002; Tripp, 2010).

In this paper, we argue, first, that Ghana has historically prioritized electricity service provision as a key component of state-building; and second, that the greater openness of the democratic regime in Ghana allows citizens to demand more and better electric service provision, causing policy feedbacks (Mettler and Soss, 2004) that further strengthens the social contract for Ghanaians. In Uganda, however, we show first, how electricity has not been tied to state-building until recently; and, second, that poor access to electricity, combined with a weak, conflict-ridden regime, has undermined an already weaker social contract for Ugandans.

3. Research design and methods

This study uses "Mills method of difference" to compare two African cases, Ghana and Uganda, which share a great number of theoretically important similarities. Both territories were colonized by the British in the late 1800s and had highly centralized precolonial political systems that played major roles in the onset of colonial administration. In both places, the British debated the prospects of a major hydro-electric dam project, and both countries had similar resource endowments, with major waterways that offered great potential for hydro-power generation. Both countries achieved independence relatively early on, with Ghana becoming the first on the continent in 1957, and Uganda following in 1962. Not long after, both of these newly independent regimes were overthrown by

military coups, and then experienced over a decade of political instability and economic decline. Today, both Ghana and Uganda are cases of relatively new democracies, moving to multi-party competition in 1992 in Ghana, and in 2005 in Uganda. Yet in Ghana, at least three-quarters of citizens have access to electricity, whereas less than one-fifth do in Uganda. Why?

To investigate this question, we use a combination of several qualitative research methods in a comparative historical analytic approach. We draw on data from qualitative interviews and ethnographic observation during multiple fieldwork trips over the past two decades.[6] And, we analyze policy documents, archival records, aggregate statistical data, and other secondary sources.

4. Comparing variation in electricity access in Ghana and Uganda

Our presentation of data begins with statistics on electricity provision in both countries. This data shows that the Ghanaian government has been consistently more able to provide electricity resources to its citizens – which we argue below is a deliberate effort to strengthen the social contract, and therefore the state – than has Uganda. Obtaining accurate data on electricity access rates in sub-Saharan African countries, however, is difficult. First, there are multiple ways to define and measure access to electricity. For some countries or aid organizations, such as the World Bank, access rates are usually based upon survey questions asking citizens whether they have household access (World Bank, 2015). Other organizations, such as the IEA, instead usually count utility company connections to the grid (Ibid., p. 43). Both of these reputable international agencies are still sometimes opaque in their data, and list "estimate" as the source of access rates (e.g. for Uganda, see World Bank, 2015, p. 292). Still other organizations have suggested counting electric poles in a location, examining the intensity of night light in satellite imagery, or measuring at the community level rather than the household, as the Afrobarometer does (2015). The result is considerable variation in resulting per capita access rates (Brass et al., n.d., ESMAP, 2015). Moreover, although international organizations began systematically collecting cross-national data on access for the period since 1990, scant systematic data exists before that year.

Second, although many people have a grid connection or the possibility of "access" in their household, they may not actually have consistent, reliable or affordable electricity. As a result, the amount of electricity consumed across households within a country varies dramatically, as does its ability to improve the livelihood of citizens (World Bank, 2015). The experience of electrification in rural areas, for example, likely involves more power cuts, fewer electrical appliances and devices, and fewer household density of access than in urban areas. According to the figures below Ghana has made a much stronger effort than Uganda over the decades to provide rural access to electricity, reflecting its goal of using electricity for nation-building.

Recognizing these challenges, Table 1 illustrates that across several measures, electrification is higher and more accessible in Ghana than Uganda from 1966 onward (when the Akosombo dam opened in Ghana). Access rates, shown primarily using the 2015 Sustainable Energy for All data based on household surveys (but see footnotes regarding data sources in the table), in Ghana have been consistently five times higher than those in Uganda – with an even greater difference in rural areas. Measuring electrification another way, based on the average quantity of electricity consumed per capita in kilowatt hours reveals a similar four or fivefold increase from that of Uganda to that of Ghana. Additionally, gross installed capacity in Ghana has measured about four times those of Uganda since the Akosombo dam became operational. Although we do not have figures that pre-date the introduction of the World Bank's "Doing Business" reports in 2003, getting a grid connection has consistently taken less time in Ghana than in Uganda.

Table 1: Variation in electricity measures between Uganda and Ghana.

	1960	**1970**	**1980**	**1990**[7]	**2000**	**2010**	**2015**
Uganda: National Access Rate	*	*	*	6.8%	8.6%	14.6%	18.1%[8]
Uganda: Rural Access Rate	*	*	*	1.5%	2.4%	5.3%	8.1%
Uganda: Urban Access Rate	*	*	*	40%	44%	55.4%	71.2%
Uganda: Average wait for electricity connection (in days)[9]	*	*	*	*	*	90	86
Uganda: kW hour consumption per capita	*	*	*	*	63[10]	75	*
Uganda: Installed Capacity (MW)	150	150	150	159[11]	269	548	838
Ghana: National Access Rate	*	*	*	30.6%	45%	60.5%	72%[12]
Ghana: Rural Access Rate	*	*	*	6%	20.9%	38.2%	*
Ghana: Urban Access Rate	*	*	*	75%	82%	84.8%	*
Ghana: Average wait for electricity connection (in days)[13]	*	*	*	*	*	79	79
Ghana: kW hour consumption per capita[14]		313	425	326	334	282	382
Ghana: Installed Capacity (MW)	2[15]	623[16]	1072	1187	1202	2390	3041[17]

* indicates data unavailability.

5. Explaining how early service provision created divergent expectations of citizenship

The data just presented shows us that Ghana has provided its citizens with more access to electricity than has Uganda. Although we can see this difference clearly in the numbers, what we do not see is why and how Ghana achieved significantly higher access rates as well as installed capacity. Historical analysis is needed to trace the process by which this occurred, and is presented in this section. Specifically, we argue that events early in the formation of Ghana and Uganda created divergent, path dependent behavior, with implications for the social contract between citizen and state that have remained for decades.

5.1 The colonial state and the politics of electricity provision

By the early 1900s, Great Britain governed territories containing more than half of the world's large hydroelectric dams (Khagram, 2004: 5). Indeed, Patrick McCully wrote that "British colonialists were the most ardent dam builders outside Europe and North America in the late nineteenth and twentieth centuries" (McCully, 2001: 18). On the African continent, by the mid-1920s, Britain had already facilitated construction of the Aswan Dam in Egypt and the Sennar Dam in Sudan. The British chose to construct dams not to provide access to electricity for African subjects, but for military or economically strategic benefits for the colonial government. Britain therefore pursued very different paths in Ghana and Uganda, based on the financial and political interests of the Crown in the two places. In Ghana, colonial administrators contemplated economic benefits derived from electricity-powered industrialization to process bauxite deposits, but decided against building a dam on the Volta River. In Uganda, however, a dam on the River Nile helped secure British claims on that crucial river – questions arose only over the precise site and what role the state versus the private sector would play in building the dam.

More specifically, in Ghana, the British invested very little in infrastructure and public services – what existed was only to support the extraction of raw materials. For example, Ghana's only two railways were built between the coast and the interior to extract cocoa and gold. The availability of electricity was extremely localized to a few towns and mines; elsewhere people used firewood, charcoal, and kerosene for light and cooking (Birmingham, 1998: 30). The British colonial government periodically considered building a dam to support aluminum production in Ghana. The initial idea for a dam on the Volta River had been proposed as early as 1915, when bauxite, a key ingredient in producing aluminum, was discovered on the Kwahu Plateau in the Gold Coast (Moxon, 1969), but was dropped. The dam proposal resurfaced in 1938 and gained support after World War II, when Britain's use of aluminum was strong and predicted to grow; the colonial government could mine bauxite and produce aluminum if it had a source of cheap power (Diaw and Schmidt-Kallert, 1990). By 1953, the British set up a Preparatory Commission which explored and eventually recommended the construction of the Volta River dam (Boateng, 2003: 124).

By this point in the 1950s, however, Kwame Nkrumah had won a national election by a landslide and was serving as Prime Minister but still sharing power with the British colonial Governor. Nkrumah saw broader benefits to electrification, and he attempted to raise money for the Volta dam from the British in the early 1950s. He failed; the British calculated that the profit margins for aluminum might be better if they invested in Canada (Birmingham, 1998: 65; Diaw and Schmid-Kalleter, 1990: 10). The construction of electric power was considered only in its relation to generating a raw material that the UK needed more cheaply than it was available on the world market. This approach to electricity generation stands in stark contrast to the way that Nkrumah later emphasized the broad benefits for the new nation.

In contrast, the British developed a substantial interest in developing hydroelectric power in Uganda. In the early 1900s, they already recognized the importance of controlling the Nile River, both politically and as a potential economic tool. Winston Churchill, then the Parliamentary Under-Secretary of State for Colonies, viewed the Nile as an untapped opportunity for industrialization in Uganda, saying that the gorge of the Nile would "one day be crowded with factories and industries" (Churchill 1967 (1908): 75-77). The question in Uganda was who should own the dam: the state or private actors. This question arose as elsewhere in East Africa; a private company, the East African Power and Lighting (EAP&L) had considerable control over electricity in present-day Kenya and mainland Tanzania, as well as stake in Uganda. Churchill reflected, "All this waterpower belongs to the State. Ought it ever to be surrendered to private persons?... in Uganda, the arguments for the State ownership and employment of the natural resources of the country seem to present themselves in the strongest and most formidable array" (Ibid). Churchill argued that because Uganda was considered a "native state," not one with a large white settler population, the "native population" would not benefit from "modern money-making or modern money-makers" if the government turned over its hydroelectric potential to private firms (Ibid).

Electricity therefore expanded slowly in the 1930s and 1940s, and a significant transformation did not take place until after the Second World War. Specifically, by 1948, the 'hydroelectric vision' for the Nile was reignited with the creation of the Uganda Electricity Board (UEB) – a state monopoly. Despite the EAP&L's regular power outages and concerns about financial sustainability due to insufficient demand for electricity by paying customers, the UEB took over all of the EAP&L's generation and distribution licenses. The same year as the UEB was created, work began on the construction of the Owen Falls dam (now Nalubaale dam) at the point where Lake Victoria spills into the Nile.

Although the dam was completed by 1954, the project encountered huge financial challenges owing to rising costs and inflation; it was three times as costly to build as originally estimated. The increase in cost – alongside the fact that Uganda's industrial and colonial citizen consumer base was insufficient to consume the electricity from the dam – meant that the UEB was desperate to secure consumers for electricity when the dam

came on line. A central problem was that the UEB could not afford to expand the network to reach the new consumers it needed (Hirschman, 1967: 63). Indeed, one assessment notes that "UEB's transmission lines served essentially to make the rich and powerful [civil servants and East Indian traders] more comfortable" (Hirschman ,1967: 63). Yet the UEB was "forced to look for consumers wherever they existed" including in rural areas, where consumption and ultimately profit were unreliable (Wilson. 1967: 11-12). Consistent with British colonial policy, however, Black Ugandans were not considered potential customers – access for the inhabitants of the land was not a priority. Instead, one of UEB's first acts was to approach the EAP&L in Kenya to purchase a bulk supply of electricity, which it reluctantly agreed to. Hence, the electricity network that had been established by the colonial government had developed as a technical, export-oriented endeavor and was completely removed from a broader vision of providing electricity to indigenous Ugandans.

In 1962, just prior to the formal transition to independence, the World Bank provided a Specific Investment Loan to the Government of Uganda, titled *Electric Power Development Project*, or Power I, owing to the series of subsequent loans for the power sector. This was the World Bank's first loan to Uganda, and was specifically focused on the UEB's $14.0 million network expansion programme, which was ultimately very short lived. But the World Bank's engagement in the electricity sector established some path dependency in Uganda, cementing the Bank as a dominant advisor and funder of projects until the early 2000s.

5.2. State electricity provision at independence

The divergent approach that the British took to electricity provision during the colonial period in Ghana and Uganda then shaped whether electricity was a priority for the new leaders during the independence period in the two countries. In Ghana, after years of British inaction, and building on a history of resistance to the way the British governed,[18] Nkrumah made electricity provision a cornerstone of his plan for the new nation. In contrast, in Uganda, where the British had established a national utility board and completed a hydroelectric dam that provided ample power to the new country, expanding electricity was not connected to nation-building. Instead, Obote continued the British focus on obtaining external finance and expertise for mega-hydroelectric dam projects, as well as identifying elite consumers for the electricity produced.

In Ghana, Nkrumah was determined to make electrification a priority. It was so important to his nationalist agenda that electrification is highlighted in the inaugural Convention People's Party (CPP) manifesto for the first national election held by the British in 1951. Nkrumah promised that if elected, he would "do everything possible to harness the power of the Volta" (Nkrumah, 1961a: 371). After independence in 1957, Nkrumah continued to prioritize the development of electric power, highlighting the benefits to the nation as a whole. In early speeches to parliament, he described the Volta River Project as "our first priority" (Nkrumah, 1960a: 17).

Even though Nkrumah's eventual plan for electricity development depended on having an aluminum company as the anchor business, he articulated the benefits of electric power in terms of achieving "national development" (Nkrumah, 1960d: 248). Nkrumah highlighted the gains not only for industrialization, but also for society as a whole when he said that the dam was "designed to produce the electrical power for our great social, agricultural and industrialization programme." (Nkrumah, 1968: 77 cited in Boateng, 2003). Indeed, in his first radio broadcast as leader of the First Republic, Nkrumah explained how electricity was crucial for improving individual welfare in both rural and urban areas:

> My first objective is to abolish from Ghana poverty, ignorance and disease. We shall measure our progress by the improvement in the health of our people; by the number of children in school, and the quality of their education; by the availability of water and electricity in our towns and villages; and by the happiness which our people take in being able to manage their own affairs. The welfare of our people is our chief pride, and it is by this that my government will ask to be judged (Nkrumah, 1957).

Nkrumah focused beyond individual benefits, however. He consistently emphasized the way that electric power was connected to *citizenship* rights in the new nation. In an early speech to the National Assembly in 1960, he advocated for the Volta River Project in terms of the "rights" of men:

> Our industrialization plans, when translated into practical achievements, will confer on us the right to live and enjoy life as men, needing nothing, asking for nothing, giving of our bounty in aid of our brothers and having great faith in our ability to survive (Nkrumah, 1960b: 43).

In another speech arguing for the Volta River Project, Nkrumah argued that the Ghanaian government was "raising the standard of life and providing amenities which give to all citizens the essential things of life" (Nkrumah, 1960c: 156).

Whereas Uganda had already established a relationship with the World Bank pertaining to electrification, the Ghanaian government turned instead to American donor assistance to provide financial and technical support for Volta River dam construction. Having failed to earn the support of the British earlier in the decade, Nkrumah personally approached United States President Eisenhower in 1958. Eisenhower agreed on the condition that an American consulting group, the Kaiser Engineers, would conduct a new feasibility study (Boateng, 2003).[19] The Kaiser report confirmed the viability of a dam at Akosombo but suggested that an aluminum company be formed (later VALCO) to justify the project.

Nkrumah personally championed the state's effort to provide electricity to the nation, even after funding was secured for the dam. He became chairperson of the statutory body created in 1961, the Volta River Authority (VRA). And he had a villa built on a hill high above the Akosombo construction site to survey and encourage more rapid progress.[20]

Even before Akosombo was operating, Nkrumah was calling for future extensions of the "national electricity grid system" so that it would be universally accessible in "the smallest nook and corner of Ghana" (Nkrumah, 1961a: 39; Nkrumah, 1962a: 152).

In contrast to the Ghanaian experience, electricity did not become a national development priority in Uganda. There, the provision of electricity started much earlier as an explicitly colonial project, and was not tied to nation-building independence movements. In fact, nationalist movements formed later in Uganda than in the Gold Coast, and Ugandan independence came five years after Ghana, in 1962. Ugandan leadership at independence was more contested than that of Nkrumah and the CPP; there were growing tension between the influential Buganda Kingdom in central Uganda and parties aligned with the dominant Protestant and Catholic churches. The Uganda People's Congress (UPC) under the leadership of Milton Obote formed a coalition with the Baganda to secure victory in the 1962 elections, beating the Democratic Party. The British Governor of Uganda suggested a power sharing arrangement, calling for Milton Obote to become Prime Minister and the Kabaka (Bugandan king) to become President.

In the early years of his short rule, Obote attempted - but failed - to increase electricity generation capacity for industrial use. Although electrification was never a top priority, Obote pushed the development of two vast hydroelectric projects. Unlike Nkrumah's emphasis on electricity for all Ghanaian's welfare development, Obote pushed for electricity to be an export commodity to promote export oriented industrialization in Uganda. First, Obote revised the agreement with Kenya to provide a bulk supply of 30 MW of electricity for fifty years. Second, he made plans to develop two large hydroelectric dams, but prioritized a vision of industrialization over existing tourism revenues and conservation of natural treasures. Obote and the UEB chose the largest and most controversial location possible – a site in Murchison Falls National Park that could support a 600 MW dam – as the preferred location for a new dam. Internally, there was a great deal of push back against the Murchison Falls proposal. Foreshadowing future debates in Uganda, conservationists asked why the Government of Uganda would undermine the certain financial returns from tourism in Murchison Falls National Park over hypothetical returns from electricity exports.

Instead of focusing on internal national development, Obote was also focused on Uganda's position in East Africa. During the first years of Independence, both Uganda and Kenya were involved in talks with the World Bank to each develop new dams. The Bank had previously turned down Kenya's request for support to construct a dam on the Tana River because it argued that supply from Uganda would be sufficient for Kenya. Instead, they proposed that Kenya and Uganda jointly develop hydroelectric schemes, thus creating an early power pool. Obote and the UEB turned down the joint proposal for cost reasons, but also recommended a second dam at Bujagali Falls with the hope to export additional electricity generated.

Obote was unsuccessful in achieving the construction of these export-oriented dams because securing financing for mega projects was difficult and because political turmoil quickly arose after independence, eventually enveloping the country. One nationalist move that Obote did affirm was making the state the exclusive supplier of electricity. In 1964, the Uganda Electricity Act was passed establishing the UEB as the sole provider of electricity in the country, reaffirming the state monopoly. This would not change until 1999, when a new Electricity Act was passed unbundling the utility.

6. The role of the state in electricity provision during conflict and instability

Despite the early divergence in the timing and approach to electricity provision, both Ghana and Uganda experienced developmental stagnation during two decades of political instability and conflict – from the late 1960s through the 1970s. Neither country was able to achieve any appreciable expansion of the infrastructure for electricity. In both cases, the initial leaders at independence responded to mounting opposition and disunity by creating a single-party state and restricting competition for power (Zolberg, 1966; Karigure, 1980). In neither case was this political strategy successful, as both Nkrumah and Obote were ousted from power by military coup d'état. The unrest that followed made survival a priority, rather than the expansion of public goods such as electricity.

In Ghana, Nkrumah was ousted by coup in 1966, just one month after inaugurating the Akosombo Dam. Over the next decade, Ghana was plagued by political instability, alternating between relatively brief periods of military and democratic rule (Ziorklui, 1988). Investment in any kind of public infrastructure was stymied by the exploding external debt and lack of foreign exchange (Gyimah-Boadi, 1993: 2-3).

In Uganda, despite all of the electricity plans in the early post-colonial period, by 1966, a de facto one party state had emerged in Uganda as Obote and the Baganda were increasingly at odds. Obote dismissed the President and Vice-President assuming the title and role as President, introduced a new constitution, and attacked the King of Buganda's palace leading to the King (Kabaka) fleeing. By 1969, Obote had banned all opposition parties and detained many leaders.

Obote was deposed by Idi Amin in 1971. What followed was more than twenty years of civil unrest in the country, with no further development of hydroelectric potential and a general degradation of the existing electricity infrastructure. In this period, both the amount of electricity generated as well as the number of consumers using electricity declined significantly. In short, "between 1971 and 1986 there was no major development in the power sector" in Uganda (Engorait, 2005: 1). Electricity production at the Owen Falls Dam (Nalubaale) dropped from 150 MW of electricity when it was fully functional in 1954 to only 60 MW in 1986, the year that Yoweri Museveni took power and the civil conflict was placated. Similarly, the total number of consumers in Uganda dropped from

69,500 in 1971 when Amin took power to only 60,918 households in 1979, the year Amin was deposed (UEB, 1996; 1999). By 1980, electricity consumption in Uganda had diminished to only two-fifths of what it had been in 1970 (Nabuguzi, 1995: 197).

7. Grassroots governance reforms under new dictators (early Museveni and early Rawlings)

After decades of instability and conflict, both Ghana and Uganda emerged in the early or mid-1980s under the leadership of military officers or former guerilla leaders who advocated grassroots governance reforms. Both Jerry Rawlings and Yoweri Museveni attempted to rebuild their national economies in the face of crushing debt burdens and tremendous pressure from international financial institutions to adopt neoliberal reforms. Although both leaders did structurally adjust their economies, the two cases still diverged on electricity strategy: Rawlings focused on expanding national electrification, while Museveni worked to confront multiple post-conflict problems initially, with electricity only prioritized later. In result, Rawlings was able to return to Nkrumah's focus on electricity as a right of citizens, while the social contract in Uganda remained weak, with high post-conflict wariness toward government.

In Ghana, Rawlings focused on expanding access across the nation to what he also called "the national grid" (Rawlings, 2000). The Rawlings government extended the electric grid not only to the more remote regions but also to new towns and rural communities. Between the late 1980s and mid-1990s, Rawlings had provided electricity to four new regions to the north and west of the nation's capital: Brong-Ahafo, Northern, Upper West and Upper East.

Despite sharing Nkrumah's goal of expanding electricity access to the nation, Rawlings took a more neoliberal approach to the role of the state and its citizens in implementation. An important component of Rawlings' National Electrification Plan was what was termed the Self-Help Electrification Project (SHEP). In contrast to the developmental state role envisioned by Nkrumah, Rawlings emphasized how communities and citizens should contribute themselves to the spread of infrastructure and development rather than waiting for the central state to act (Rawlings, 1993: 122). Rawlings praised the involvement of local people, highlighting how their participation in the initiation, financing, and ongoing user fees for the service provision not only accelerated progress (Rawlings, 1986: 42) but strengthened the sustainability of the infrastructure (Rawlings, 1993: 39). In doing so, he was also able to emphasize self-help as a nationalist Ghanaian movement, again connecting service provision to the state, even when local, non-state actors provided.

In addition to community self-help, Rawlings also emphasized the role of the private sector and facilitated the external support of donors to help finance this expansion of infrastructure. Overall, Rawlings acknowledged and even expanded citizen expectations

around the rights of electricity provision during this period, but shifted the responsibility for that provision so that the central state was not alone in bearing the burden.

In Uganda, on the other hand, Museveni struggled to meet the nation's electricity needs. Some increased stability under Obote II (1980-86), in the years immediately prior to his taking power, had increased the number of consumers. But, just two years after taking power, in 1988, the number of consumers had dropped again to 80,795. Museveni was confronting a problem: stability led to increased demand, but Uganda's "dilapidated" infrastructure could not keep up (Kiyaga-Nusubuga, 2004: 89). At the same time, violent conflict in Uganda, especially during the Amin years, meant that many types of infrastructure and basic services required immediate attention, and citizens remained wary of the state. Although they hoped the new government would improve conditions, their expectations were low – indeed, many relied on service provision by CSOs. However, unlike in Ghana, where self-help was marketed as a deliberate nationalist strategy, non-state provision in Uganda tended to be a spontaneous response to need that was unplanned and not highly directed by the state.

At first, Museveni resisted the advice and market-oriented reforms promoted by the international community. But by the early 1990s, with donor frustration escalating, Uganda acquiesced to demands for major macroeconomic reform, public sector reform, and the privatization of parastatals. Remarkably, the Uganda Electricity Board was not designated for privatization.[21] The UEB was still viewed as a central actor in energy sector improvement by the World Bank, which had invested millions in two new power generation facilities.[22] Nonetheless, as the economy improved, the Government of Uganda deepened its reliance on donor support and continued to rely on CSOs to provide services (De Coninck, 2004).

By the late 1990s, however, two problems started to emerge with respect to service provision: Government reliance and acceptance of CSOs as service providers started to wane and the electricity sector continued to perform poorly. Thus, while the macroeconomic situation improved generally and overall poverty rates decreased in the 1990s, the role of CSOs in providing services decreased and citizen expectations that the state could reliably provide electricity services weakened terribly. The state was trying to reassert its role as a service provider, but confidence in this role actually diminished further, owing to almost three decades without reliable service provision.

8. Multi-party politics, citizen expectations and electricity provision

The trajectories of state building and citizen expectations continued to diverge in the era of multi-party politics beginning in the 1990s in Ghana and the mid-2000s in Uganda. The government of Ghana continued to play a major role in expanding electricity provision, and citizen expectations of having access to that service remained strong. When electricity generation could not keep up with demands in Ghana, citizens complained bitterly in the

media and protested in the streets. Meanwhile in Uganda, the Uganda Electricity Board was unbundled, and the state only retained ownership of transmission. Private sector actors were invited to help build a new mega-dam project, and privatization unfolded with little public input or transparency. Few Ugandans had access to electricity and expectations of the state were so low that almost no protest occurred, even with blackouts amid soaring electricity prices for citizens.

In Ghana, the introduction of multi-party politics in 1992 increased the motivation for Rawlings to continue to expand the electric grid, only now he regularly appeared in a navy-blue suit as a democrat rather than his lieutenant's jumpsuit as a dictator. By the end of his rule in 2001, Rawlings had connected all of the district capitals as well as 2,022 new towns and villages to the grid (Danso-Boafo, 2014).

After two rounds of elections that the opposition roundly criticized as fraudulent or unfair, Ghana witnessed an alternation from the incumbent NDC to the opposition NPP in 2000. The opposition NPP held power for two consecutive four-year terms (2001-2008) and then the NDC came back to power for two terms (2009-17). The consolidation of democracy in Ghana meant that political parties had to compete for voters with ever-better service provision, and that civil society organizations were increasingly vocal about state responsiveness. Indeed, Briggs (2012) finds that the NDC strategically allocated World Bank aid to expand electrification in politically important localities in an attempt to secure votes in 2000.

And still, despite the Ghanaian state's prioritization of electrification since independence, the energy sector has not been able to meet consumer demands. Although the state has prioritized grid extension, new electricity generation and grid maintenance did not keep pace with the growth in end-users. Climate change has resulted in historically low water levels in the dams such that generation capacity is reduced (Volta River Authority, 2015). Power reliability has further been reduced by inefficiencies in the distribution and transmission system, the need for system repairs, and problems with fossil fuel availability for thermal plants.[23] As a result, from as early as 1984, and occurring with increasing frequency in 1998, 2002, 2007, 2008, 2012, 2014 to the present, Ghanaians have experienced blackouts and unannounced load shedding (Daily Graphic, 2014).

The importance of the consistent history of nation-building in the creation of citizen expectations is seen in the response by both the Ghanaian government and the Ghanaian citizens to the contemporary electricity outages. In 2014, a new Ministry of Power was created to resolve the electricity crisis. The government also responded with a plan to rapidly increase generation capacity to 5,000 MW by 2016 in order to achieve universal access by 2020. While the government of Ghana had previously unbundled its generation, transmission, and distribution functions, in order to accomplish these new ambitious goals, they have further opened up the doors to greater private sector and foreign direct investment and management in the electric sector. More recently, donors – particularly

the Millennium Challenge Corporation (MCC) – have pushed Ghana to look toward the template of Uganda and allow a larger private sector role in the management of its transmission and distribution infrastructure. While Ghanaian officials were reluctant to transfer ownership of the national grid to a wholly private entity, they have agreed to explore the possibility of transferring management to a private concessionaire, and are currently working with the MCC to identify potential partners. Despite these reform efforts, the electricity crisis and political ramifications continued. In a recognition of the seriousness of the situation and calls for government responsiveness, the then Minister of Power vowed to resign if Ghana had not resolved the electricity crisis by 2016; he resigned on December 31, 2015 (Dogbevi, 2015).

Another indicator of a strong citizen expectation for electricity are the donors concerns that the incumbent government would engage in reckless deficit spending in advance of the 2016 election (Yeebo, 2015). Historically, each incumbent administration regardless of party has used deficit spending prior to the election. The NDC nearly doubled the deficit during the 2012 campaign (Yeebo, 2015). In 2006, the NPP incumbent Kufuor purchased temporary off-shore power plants in a desperate move to stave off power cuts (Yeebo, 2015).

The most striking evidence of a persistent difference in the level of citizen expectations of power is the development of citizen protest in Ghana. Citizens have begun to complain about the power outages as "dum sor, dum sor", or "off, on, off, on" in the local Twi language. More recently, cynicism has mounted and so some have started to characterize the electricity crisis as simply "dum, dum" or "off, off". Ghanaians have used the #dumsor tag on Twitter to complain about load shedding and to organize "dumsor vigils". In mid-June 2014, the then-opposition NPP party organized protests in the center of the secondary capital, Kumasi, where protesters dressed in traditional funeral attire and held signs that said "Light now, not 2016." The civil society group named the Concerned Ghanaians for Responsible Government planned a march to protest the power outages on Independence Day in 2015. The government announced an official "end to dumsor" in December 2015, and while the crisis appears to have peaked in 2015, users on social media continued to complain about load shedding throughout 2016. It is possible that incumbent John Mahama lost the 2016 presidential election partly because of dissatisfaction with his handling of the electricity crisis. Mahama himself joked that he was known as "Mr. Dumsor", and while Ghanaians are not single-issue voters, his chances may have been hurt by this association.

Uganda contrasts markedly with Ghana in this period with respect to the state's performance in electricity provision and the outcome of that performance; the focus of investment on new generation as opposed to distribution; the expanding role of non-state actors in the sector; and the effect of all of these factors on the state's approach to electricity moving forward. By the mid-1990s, the World Bank was losing patience with the Uganda Electricity Board's efforts to improve the sector. While new supply had come into the system with the Owen Falls extension, there were still major problems with

respect to cost recovery, consistency in supply, and expansion of provision. Between 1993 and 1999 there were less than 50,000 consumers – less than in 1971 when Amin took power. Other government ministries were notorious for not paying for electricity.

The UEB had been classified as a parastatal to be retained in 1992. But by 1995, donors and the government had met and agreed that the sector needed a radical overhaul. The view of the World Bank was that the UEB could no longer fill its role and that reform, restructuring, divestment and greater private sector involvement were needed. By 1999 a new Electricity Act was approved with little protest. While privatization at this time was generally received with great apprehension and protest globally, the World Bank argued there were no other alternatives for Uganda: "This is a no brainer; show me the counterfactual" said the World Bank Country Manager (Gore, 2009). The other reason that protest was so minimal was because the government argued that the reforms were essential if the next major hydroelectric project – the Bujagali Dam - was to be completed. The problem, however, was that this ambitious 'mega-undertaking' had never been done in sub-Saharan Africa; it simultaneously tied an ambitious sector reform strategy with the completion of a new, large private sector-led hydroelectric project and private-sector management of the distribution sector (Gore, 2009; Gore forthcoming). Again, unbundling and privatization were not terribly controversial in Uganda; what became controversial were the multiple impacts of waiting for the Bujagali dam to be completed.

There were multiple delays in the completion of the Bujagali project with serious impacts. In 2005, only four percent of Ugandans had access to electricity yet consumers were paying the highest rate for electricity in the region, largely owing to a reliance on several large diesel generators to fill the void in supply. In the mid-2000s, electricity system losses ranged from 35-40 percent, and the government openly acknowledged they were in a crisis. Adding to all of this is the fact that multi-party elections were permitted in Uganda in 2006, the first time in 25 years. Hence, amidst a crisis in the electricity sector, and a very risky reform agenda, donors were also pressuring Museveni to open up the political space in the country. Bujagali, therefore, served as a focusing event for broader political changes in the country: citizens and civil society groups were increasingly willing to challenge the logic of donor and government reform; they were demanding access to information about project costs and impacts; and were seeking clarity about the narratives being offered as rationales for reforms. Thus, in contrast to Ghana, debates about electricity reforms and investments in Uganda were not centrally about access but about the politics and logic of reform, transparency and the process of reform. Unlike Ghana, electricity never became the focal point of widespread political protest.

The Bujagali Dam was completed in 2012 and had an immediate impact on the sector, providing more reliable supply and allowing more household connections. By 2014, 14 per cent of the national population was connected to the national grid, but only 7 per cent in rural areas. Despite this, the legacy of the late 1990s and 2000s was significant.

Not only was the economy severely compromised, but the problems also reinforced the view that the state was unable to provide electricity services reliably and had to rely on the private sector. Hence, in contrast to Ghana, after more than four decades without reliable electricity service provision, citizens in Uganda were still uncertain about who was going to provide electricity and what role the state had in electricity provision.

Another lasting outcome from this era was how Uganda chose to move forward: The World Bank would no longer be a dominant partner in the electricity sector. Museveni and other elected officials openly criticized the World Bank for its advice and problems (Gore, 2009). But even the World Bank itself recognized the problems with its advice. One Project Performance Assessment Report by the World Bank's Independent Evaluation Group, for example, noted that the Bank's power sector policy was "not applied with due consideration to the country's characteristics" (World Bank, 2008: xii). The Government of Uganda also took steps to reduce its reliance on external support for future projects and to seek out 'new development partners' and strategies to increase access, while still focusing on the completion of large hydroelectric dams: it charged a levy on the electricity tariff that was put into a national Energy Fund, which would be used to help independently finance projects; it sought to rapidly increase the implementation of small distributed generation sources using a Feed in Tariff programme, largely supported by European donors, thus reemphasizing the role and importance of its Rural Electrification Agency; and it aggressively sought out new partnerships for future dam construction projects, particularly with China and Chinese firms.

President Yoweri Museveni has now been in power for thirty years. In 2016, election results suggest he won nearly 61 per cent of the national vote. Compared to 2011, this was a drop of 7 per cent year, but near the same level of support gained in 2006. Hence, Museveni's support weathered the deep crisis in electricity provision and supply in the country. Perhaps the reforms in the country have led voters to dissociate electricity problems from the state. Or perhaps there remain so few people with access to electricity that there is not yet a critical mass of voters dependent on supply to sanction the President when problems materialize. Whatever the explanation, Uganda's historical and contemporary experience with energy provision shows that electricity has not factored significantly in the national developmental narrative. In the pre-colonial, colonial and post-colonial periods, electricity to households and citizens has rarely been prioritized or feasible, and therefore, in contrast to Ghana, expectations that the state will provide electricity have been very low.

9. Conclusion

Despite sharing many theoretically important similarities, Ghana and Uganda have diverged in their approach to electricity provision with important consequences for the everyday political economy experienced by citizens on the ground. While most Ghanaians have access to electricity through the central grid, a slim fraction of Ugandans enjoy the same service. Moreover, Ghanaians consume more electricity per person than Ugandans on average.

We argue that variation in access to electricity in the two countries is due to their different histories of state building and the concomitant contrasting citizen expectations that arose. In Ghana, electricity provision is perceived by citizens as a fundamental duty of the state and a right of citizenship – an essential component of the social contract. Counterwise, in Uganda, citizens do not assume that electric power will be provided by the state. We demonstrate that the differences in the expectations of electric power today are a result of a longer political history, where the two states took different paths to development and state building over time. In Ghana, electricity provision was explicitly established by Nkrumah in the independence era as a nationalist project. Citizen expectations about electricity were created early on and then fed back into the political system, reinforcing the state's commitment to expanding the "national grid" to achieve universal access for all Ghanaians. In contrast, in Uganda, the colonial state began to invest in electricity provision earlier on than in Ghana, but the objective was always political or economic power, never about nation-building or providing benefits to Ugandans as citizens.

We show that the citizen expectations of electric power have more important political consequences in Ghana than in Uganda as well. In Ghana, citizens have organized in the streets to protest their lack of access to reliable electricity, and this dissatisfaction was one important factor in the incumbent president losing the national election in 2016. Meanwhile, in Uganda, citizens have not protested their comparatively low levels of electricity access, and Museveni continues to extend his time in office.

This paper's analysis makes a significant contribution to our theories of the political economy of development. Variations in electricity access outcomes are not simply explained by the differences in geography, levels of economic development, resource endowment, or international donor pressure. We emphasize instead the role of domestic politics. Yet, rather than focusing on academically popular political issues like ethnicity and voting behavior, we call attention to historical trajectories in the politics of service provision. We emphasize the need to take a deeply historical approach and explore the meaning of that history to citizens. As scholars, we examine the quality of democracy by uncovering the nature of citizen expectations and investigating the mechanisms for citizens to articulate those demands, as well as for politicians and civil servants to respond to them.

This analysis reveals the possibility for long-lasting path dependency and significant policy feedback effects even in contexts where state capacity is relatively weak, and democracy is a comparatively new game in town. The strength of such path dependency is revealed when, remarkably, both Ghana and Uganda faced similar donor pressures to privatize and liberalize their energy sectors, and, yet, their approach to electricity provision continued to diverge. This analysis thus demonstrates that policy cannot be formulated in the absence of political historical analysis.

Finally, this study raises several issues for future investigation. This comparative analysis of the differences between Ghana and Uganda is relevant for other cases in Africa and in the developing world. Climate change affects the generation capacity of many hydroelectric dams across the continent and around the world (Onishi, 2016) at the same time as many of these same countries are witnessing rising consumer demands for electric power. This conflict is spurring local-level innovation in some areas but also citizen frustration and protest in others. Not all states are responding in the same direction, or even with the same approach. Trotter (2016: 111) has suggested that inequality is "unparalleled and growing" both in the level of electrification across countries, and within countries, between rural and urban areas. Even where the electric grid is available, some individuals and households may experience the problem of being "undergrid" where they simply cannot afford the connection fee or the cost of using the electric power that runs overhead (Lee et al., 2016). For example, Lenz et al. (2016: 108) found that nearly 30 per cent of the target population for electricity expansion had the possibility of access to the grid but were still not connected, largely because it was considered too expensive. Where much of our past attention has focused on the persistence of poverty in Africa, future research must turn to a critical examination of the politics of inequality on the continent.

Notes

1. Ghana's land area is 238,500 km squared with a population of 24.6 million in 2010. Uganda's is 241,040 km square, with 34 million people in the same year.

2. Ghana moved up to the lower middle-income status as classified by the World Bank in 2011.

3. Precolonial political systems in today's Ghana had participated in the global trade through the trans-Saharan trade networks.

4. The effect of donor aid on infrastructure development is contested. On the one hand, aid might provide critical resources to governments for development (Sachs 2005), or, alternatively, aid might insulate states from citizen accountability and reduce infrastructure development (Easterly 2006).

5. See https://www.whitehouse.gov/the-press-office/2013/06/30/fact-sheet-power-africa (Accessed 15 December 2016).

6. Gore has taken repeated field trips to Uganda from 2001-03; 2008; 2010; and from 2012-2016. Brass and Baldwin conducted fieldwork in 2013, and MacLean was in Uganda in 2014. MacLean has conducted extensive fieldwork in Ghana in 1994; 1996; 1998-99 and then again in 2014 with Baldwin.

7. Data in 1990, 2000 and 2010 access rate cells comes from the Sustainable Energy for All Initiative of the World Bank (2015). This data differs from that of the IEA for Uganda: the IEA cites Uganda's electrification rate at 9% nationally, 3% in rural areas and 46% in urban ones in 2010 (IEA 2011), and 14.5% in 2015 (IEA 2016).

8. Data in Uganda access rate cells from the World Bank World Development Indicators for 2012, accessed August 2016.

9. Data from the World Bank World Development Indicators, accessed August 2016.

10. Data from the Ugandan Electricity Regulatory Authority (2012), p. 5. 2010 data in table is from 2011. 2000 data represents the average from 2000 to 2005.

11. Data for 1990-2015 from the United Nations Energy Statistics Database (2016).

12. The Ghanaian Minister of Power Dr. Donkor cited an 80% electrification rate (2014 interview).

13. Data from the World Bank World Development Indicators, accessed August 2016.

14. Data from the World Bank World Development Indicators, accessed August 2016. 1970 data is from 1971, the first year on record, and 2015 is from 2013, the most recent year available.

15. Amount installed at the Tema diesel power plant in 1956. Additional capacity likely existed in Accra.

16. Amount produced by the Akosombo Dam and Tema diesel plants only, so likely an underestimate of total installed capacity. Likewise, 1980 figure is based only on Akosombo and Kpong Hydroelectric Plant. Data from the Resource Center for Energy Economics and Regulation, University of Ghana (2005).

17. Data from the United Nations Energy Statistics Database (2016). 2015 data is from 2013.

18. The Asante Kingdom battled the British in several wars during the 1800s, from as early as 1806 when they attacked the Fanti Confederation which was supported by the British. The Asante continued to resist even after the Asantehene Prempeh I was exiled to the Seychelles in 1896, attacking the British fort in Kumasi when the British Governor Hodgson demanded to sit on the sacred golden stool. Nationalist movements started to develop as early as the end of WWI, with the formation of the West African Congress in 1917 demanding self-government. The United Gold Coast Convention was formed in 1947, and Nkrumah was asked by the founders to help lead.

19. Birmingham argues that Eisenhower agreed because he did not want to cede influence in Africa to the Soviet Union during the Cold War.

20. Interview, Volta River Authority guide, tour of Akosombo Dam, June 2014.

21. In 1992, a list of forty public enterprises to be divested was released, but the Uganda Electricity Board was classified as a Class 1 enterprise and was retained as a public entity.

22. In 1984, the World Bank conducted an energy assessment of the country and approved two new power projects in 1985 and 1991– Power II ($28.8 million) and Power III ($125 million). Power III included the addition of a new, 102 MW power generation facility (Owen Falls extension).

23. Interviews with politicians, policymakers, donor officials, business leaders, and NGO representatives in the energy sector, Accra and Kumasi, Ghana, June – July 2014.

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