

Powering racial capitalism: Electricity, rate-making, and the uneven energy geographies of Atlanta

EPE: Nature and Space

0(0) 1–23

© The Author(s) 2021

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/25148486211016736

journals.sagepub.com/home/ene**Nikki Luke** 

The University of Tennessee, USA

Abstract

In this paper, I bring together scholarship on racial capitalism and critical energy studies to investigate how electrification contributes to racialized uneven development. I work toward a theory of racialized electricity capital as a state-supported circuit of accumulation through corporate provision of electricity, which is basic need essential to everyday life. I develop a case study of the electrification of Atlanta, Georgia to examine the historical–geographical formation of the relationship between the city’s electric utility, Georgia Power, and the state agency that regulates the Company, the Georgia Public Service Commission. I ask how regulation functioned simultaneously to expand and differentiate electricity consumption across Atlanta and in so doing reinforce a racialized labor hierarchy and unequal access to affordable electricity. This case study emphasizes the importance of analyzing the central role of the state in allowing and perpetrating systems of energy provision that create racialized and gendered poverty. Drawing from the most recent hearings regulating electricity rates before the Commission in 2019, I bring to the fore the work of energy equity activists leading a campaign to *Fight the Hike* who enact demands for racial justice and a democratic energy system.

Keywords

Electricity, racial capitalism, energy geographies, uneven development, Atlanta

Introduction

On 17 December 2019, the Georgia Public Service Commission granted a \$1.7 billion rate increase to the regulated electric utility Georgia Power that provides electrical service to

Corresponding author:

Nikki Luke, Department of Geography, College of Arts and Sciences, The University of Tennessee, 417 Burchfiel, 1000 Phillip Fulmer Way, Knoxville, TN 37996-1330, USA.

Email: knluke@utk.edu

2.6 million households comprising nearly 70% of Georgia residents, including those in Atlanta. The Commission works with Georgia Power to determine the fuel sources the utility uses to generate electricity and the price customers pay for it. The Commission has the final decision over the rates for electricity in the Company's noncompetitive service territory that state law protects as part of its mandate to secure "safe, reliable, and reasonably priced" utilities for Georgia residents (Georgia Public Service Commission, 2020). The rate increase came after months of local organizing including letter-writing, public testimony, and demonstrations from racial justice, faith, and environmental organizations who protested the Company's slow action to address climate change, limited investment in renewable energy and energy efficiency improvements, and failure to consider the exorbitant and unequal cost of electricity across Georgia households. The protesters argued that the Company's proposed \$7.95 increase in monthly service fees would disproportionately affect the customers who are least able to afford their bills.

In a rally to *Fight the Hike* outside the Commission building in downtown Atlanta at the end of the first day of hearings on 30 September 2019, a group of predominately Black Georgia Power customers gathered to argue their point. One woman from the Malcolm X Grassroots Movement put it simply: "We ask for \$15 an hour and we're told it's not feasible. Now we know this increase is coming and there's been no increase on our side" (Partnership for Southern Equity et al., 2019). She argued that electricity is entangled in the reproduction of racialized uneven development in Atlanta and questioned why the Company, permitted by the Commission, profits while low- and fixed-income people in Atlanta who live in poverty struggle to pay their utility bills. The effects of high utility bills are significant in Atlanta, which has among the highest median energy burdens in the country. In low-income and historically Black neighborhoods energy bills consume 10% of household budgets, outpacing the 6% threshold often used to define affordable energy and more than double the metro area median of 5% of household income (City of Atlanta Mayor's Office of Resilience, 2018; Drehobl and Ross, 2016).

Earlier in the day on 30 September, in testimony before the Commission, Georgia Power president Paul Bowers declared the proposed rate increase was essential to maintain the flows of electricity that are a "cornerstone of Georgia's economy". He acknowledged that the role of the Commission is to secure electricity provision in its corporate form and thanked the Commission for its policies that give "businesses and industries the confidence to locate in our state and have given investors the confidence to provide the capital necessary to finance the infrastructure that is required now and, in the future" (Bowers, 2019). He insisted that the rate increase was in the public interest—despite the financial mismanagement of a nuclear construction project for which customers are also paying—as it was necessary to maintain the health of the Company and secure continued investment by fulfilling the corporate demands to provide sustainable returns for shareholders. Neither the Commissioners, nor Georgia Power officials, acknowledged the relation between investors who profit from the Company and the households burdened with high energy costs despite the critiques of community organizers with the *Fight the Hike* campaign. Community members and organizers denounced the profoundly unequal form of Georgia's growth model powered by electricity and built on the disenfranchisement and impoverishment of color and low-income communities.

In this paper, I work backwards from the 2019 rate case to examine the role of electricity networks in driving uneven development inherent to racial capitalism. Central to this is Davis's (1983, 2003) observation that investigating uneven power relations demands a nuanced analytical lens attentive to people's lived experience defined through the interdependent categories of gender, race, class, nationality, and ability. As such, I begin from the

historical position that capitalism has always been racial capitalism, which relies upon and reinforces racial difference in reproducing inequality at the root of capitalist exploitation (Du Bois, 1935; Robinson, 2000). Racial capitalism has thus also always shaped urban energy geographies. This case study of the electric utility demonstrates how the state plays a central role in allowing and perpetrating racism, which Gilmore (2002, 2007) defines as violence that disproportionately makes nonwhite people vulnerable to premature death. I build on Gilmore's theorization to examine the uneven energy geographies of Atlanta engineered through corporate and state governance. I mobilize the notion of racialized electricity capital as a state-supported circuit of accumulation to examine how electrification fuels what Wright (2020) terms racialized uneven development through a case study of the historical-geographical processes that differentiated electricity access in Atlanta.

This paper proceeds in three parts. In the first section, I analyze urban energy geographies with a specific focus on electricity through the lens of racial capitalism. Second, I work through this framework to better understand electrification and the processes of rate-setting in Atlanta where Georgia Power emerged as a regulated, investor-owned utility subject to oversight by the state Public Service Commission. I ask how regulation functioned to expand electricity consumption across Atlanta and in so doing reinforced the racialized uneven development of the city. Finally, I analyze the rate-making process and bring to the fore the work of energy equity activists leading the *Fight the Hike* campaign. This project grew out of my dissertation research on workers in the energy sector that I started as a graduate student at the University of Georgia. In addition to archival data collection and more than 40 interviews with energy professionals, my analysis is also informed by participatory research. As a white woman carrying out research in solidarity with the multi-racial, energy justice movement led by Black women in Atlanta, I attended rallies, town halls, and hearings in both Atlanta and in Athens, GA where I lived. Since finishing my PhD, I have continued to work in a research capacity alongside energy justice organizers in Atlanta to imagine an equitable and democratic energy system.

Powering racial capitalism

In a 1981 analysis of the Southern Company—the parent company of Georgia Power, Alabama Power, and Mississippi Power—Marable (1981: 13) critiqued the role of electricity in the New South, observing that “[i]n any racist and capitalist society, cheap sources of energy and high technology becomes a highly essential factor in the racial and economic hierarchy. The system of underdevelopment and racial oppression reinforces itself at every instance”. As an essential input for production and everyday life, energy is central to accumulation. Electricity is just one form of energy that results from a flow of charged particles that has been generated from different fuels since the 1880s when Thomas Edison first sought to commodify it. Edison foretold a Utopian transformation of humanity through electrification that tamed nature for human purposes (Freeberg, 2014; Hughes, 1993). Beckoning modernity, “electricity was not merely one more commodity”; but rather “seemed linked to the structure of social reality; it seemed both to underlie physical and psychic health and to guarantee economic progress” (Nye, 1992: 156). As electricity became necessary to all aspects of everyday life, the intimate connections of customers to the electric network became new opportunities for exploitation and enrichment that reinforce uneven power relations rooted in racial and gender difference.

Marable's analysis of the centrality of energy to the Southern economy in powering racial capitalism offers an important perspective to further emerging discussions within the interdisciplinary field of energy geographies. Scholars have examined the evolution and

intensification of energy use over time as production systems transitioned from biological sources of human and animal muscle power, water, and wood to fossil fuel stocks of coal and oil that powered the capitalist mode of production (Huber, 2009; Malm, 2016). Efforts to decrease the carbon intensity of energy through adoption of renewable energy sources still operate within a capitalist imperative determined by electricity capital that emerges from the “nexus of state, regulatory, and financial relationships that shape private accumulation through electricity provision” (Luke and Huber, 2021; see also McCarthy, 2015). The ways in which on-going processes of racialization figure into the political economy of energy have received less attention (cf. Baker and Phillips, 2019; Fairchild and Weinrub, 2017; Harrison, 2016; Lennon, 2017; 2020; McDonald, 2009). Just as Robinson (2000) argued capitalism required racialized logics to organize labor from the beginning as the economic system evolved out of European feudal society, so too energy geographies have always been racialized. Critical energy studies investigate capital in terms of the energy systems that fuel continuous growth and intensify global exploitation of human and non-human natures (Malm, 2016; Szeman, 2007). It is necessary to consider also how energy-intensive capital accumulation powers differentiation as racial capitalism “expands not through rendering all labor, resources, and markets across the world identical, but by precisely seizing upon colonial divisions, identifying particular regions for production and others for neglect, certain populations for exploitation and still others for disposal” (Lowe, 2015: 150). In other words, the mobility of capital powered through oil and electricity reinforces racialized and colonial logics in seeking new markets, people, places, and resources to exploit (see Mitchell, 2013; Mullings, 2009; Tadiar, 2013). Scholars have also considered how racialized disparities in energy service intersect with and reproduce gendered vulnerabilities as households headed by women more often face energy poverty (Bouzarovski and Tirado Herrero, 2017) and women are more likely to be responsible for household chores, including managing and timing daily energy use (Petrova and Simcock, 2019).

Electricity as it circulates within and powers racial capitalism remains understudied with important exceptions that analyze the discriminatory history of electrification and access to regular and affordable electricity service in Black, Indigenous, and other marginalized, especially rural, communities (see Acosta García and Farrell, 2019; Harrison, 2016; McDonald, 2009; Needham, 2014). A growing body of energy justice literature also considers racial disparities in utility disconnections and access to renewable energy and energy efficiency (see Fairchild and Weinrub, 2017; Franklin et al., 2017; Reames, 2016; Lewis et al., 2020). Lennon (2017) situates these disparities historically in investigating the transatlantic slave trade as an energy system. He argues that the exploitation of enslaved Africans as muscle power fit into the plantation economy as a form of “industrialized energy – mechanized work that fuels commercial society – [which] was traditionally rooted in an anthropocentric white supremacy that debased matter, nature, and nonwhite bodies in intersecting ways” (Lennon, 2017: 25). Racial hierarchies that defined the taking of Indigenous land and propagated chattel slavery persisted following the abolition of slavery and the transition to fossil fuels that replaced enslaved labor as the major form of industrialized energy. However, with this energy transition, “the symbolic order that enabled colonial society to denigrate Black lives in the interest of exploiting nature proved resilient” (Lennon, 2017: 25). New forms of coerced and unfree labor including the exploitation of Chinese migrants and convict leasing accompanied Jim Crow laws, extra-legal violence, and racially restrictive union organizing that reproduced a racialized labor hierarchy employed also in the growing extraction and use of fossil fuels (Barnum, 1970; Blackmon, 2008; Brown et al., 2016; Cowen, 2019; LeFlouria, 2011; Lennon, 2017; Lewis, 2009; Wilson, 2000).

Fossil-fueled mechanization and capital mobility also functioned alongside racialization to displace workers of color and migrants restricted to the least skilled positions from employment (Hall, [1980] 2021; King, Jr., 2012). Race is intimately related to the commodity form that obscures the historical–geographical processes that structure labor relations as well as energy infrastructure (Garba, 2020). Energy provision as commodified and controlled by electricity capital becomes another means for private accumulation and another site that contributes to racialized dispossession and uneven development.

The commodification of electricity is made possible through regulation and the state is central to facilitating energy regimes (Huber, 2018b). Public oversight does not mean that electricity is recognized as a minimum basic service or need for a healthy and dignified life. Rather, the commodification of electricity is bound up in the operation of democratic citizenship and married to notions of personal responsibility that fortify “racial capitalist processes of spatial and social differentiation [and] that truncate relationality for capital accumulation” (Melamed, 2015: 79). Burdensome electricity costs are seen as a personal responsibility for individual consumers (Interview 25; Interview 35, 2019). A critical analysis of racialized electricity capital requires consideration of the ways in which disparate utility costs by household are tied also to state systems of racial governance that shaped the geographies of electrification (Harrison, 2016). In the US, the patchwork of local, state, and federal policy and public and private finance that differentially extended electrical networks to white, Black, Latinx, migrant, and Indigenous communities led to enormous variation in the cost of electrical service (see Harrison 2013a, 2013b; Needham, 2014). This history today structures disparities in access to regular and affordable electricity service as well as ability to pay, which is linked to the cost of energy, the socio-economic position of a household, and the quality and energy efficiency of a home (Harrison and Popke, 2011). Analyzing processes of racialization in urban energy geographies requires a socio-ecological understanding of the built environment produced through resource flows that power electrification, automobility, and state-supported processes of segregation, urban renewal, and gentrification that define the built environment and contribute to uneven access to quality housing and living wage employment (see Bledsoe et al., 2019; Harvey, 1978; Huber, 2013; Needham, 2014).

Energy geographers have focused on the spatiality of energy production and use from the subterranean extraction of fossil fuels to the spatially expansive demands of wind and solar energies (Bridge, 2015; Hornborg et al., 2019; Huber and McCarthy, 2017). The changing landscapes of energy with the transition to low-carbon fuel sources to address climate change also represent continuities in systems of electricity regulation (see Bridge et al., 2013; McCarthy, 2015), yet the racialized and gendered consequences of these socio-natural relations and the ways in which state regulatory agencies sustain the networks of electricity capital accumulation has received less attention. Gilmore’s (2002, 2017, 2020) work on abolition geographies focuses on the spatial forms that reproduce racial capitalism to consider alternative forms of life-sustaining relations. Rooted in her organizing and academic work around the prison industrial complex, she notes that “criminalization transforms individuals into tiny territories primed for extractive activity to unfold—extracting and extracting again time from the territories of selves. This process opens a hole in a life... a stolen and corrupted social wage flies through that time-hole to prison employees’ paychecks. To vendors. To utility companies” (Gilmore, 2017, 226). She names the utility among other state-sanctioned and state-financed technologies that organizes production to facilitate capital accumulation through a racial order (see also Gilmore, 2007: 78–85).

Environmental justice scholars have mobilized Gilmore’s work to examine and organize against the disproportionate siting of polluting facilities, including power plants, in

communities of color where residents suffer embodied effects of pollution linked to electricity production in higher rates of asthma and respiratory disease (Pellow, 2016; Pulido, 2017). Fossil fueled power-production operates through the devaluation of poor and nonwhite people and places that “serve as pollution ‘sinks,’ that enable firms to accumulate more surplus than would otherwise be possible” (Pulido et al., 2016: 26). Analyses of colonial resource extraction similarly examine the operation of racial and ethnic difference in the violence of coal, uranium, oil, and mineral extraction to power urban transportation and electrical production elsewhere (Coronil, 1997; Curley, 2018; Estes, 2019; Mitchell, 2013; Needham, 2014; Stanley, 2015; Watts, 2012). Capital gains accrue to energy company and utility shareholders not only through making electricity vital to everyday life, but also through the slow violence of environmental contamination that steals time from those whose health and quality of life are not taken into account in rate- or policy-making (Gilmore, 2002; Nixon, 2011). State regulators authorize slow violence against people and places deemed undeveloped or disposable to produce low-cost energy (Kurtz, 2009; Pulido, 2017) of which electricity is only one form, but an energy source of growing importance.

As an input necessary to the expansion of racial capitalism, electricity furthers accumulation in distinct, yet intersecting ways. A working theory of racialized electricity capital requires attention to these points of division and differentiation as people interface with the electrical grid, which becomes a state-supported circuit of capital accumulation that reinforces racialized uneven development. Racialized electricity capital extracts surplus value from workers, it charges consumers whose everyday life is enrolled into circuits of capital accumulation through electrically powered devices and flows of information, it transforms communities living near power plants and mines, and it contributes to the differentiation of places as modern and under-developed based on reliable access to power (see Levenda et al., 2015; McDonald, 2009; Smith and Tidwell, 2016). Systems of utility financing and billing further exacerbate these racialized and gendered divisions by offering rebates for energy efficiency and renewable energy improvements for homeowners, permitting declining block rate structures that subsidize large customers and disproportionately impact small residential users, and authorizing utility shut-offs for nonpayment (Franklin et al., 2017; Harrison, 2013b; Hilbert and Werner, 2016; Luke and Heynen, 2020; Marable, 1981).

Racialized electricity capital defines the everyday ways in which electricity systems, produced through state-regulated capital investment, reinforce uneven power relations and reproduce racialized inequality differentiated in terms of life made valuable and life made disposable. The interlocking networks of capital and state regulation are complex, yet in the following section, I turn to the construction of Atlanta’s electric utility Georgia Power to trace the historical–geographical production of electrification and racialized uneven development of urban energy geographies.

Constructing the utility

Atlanta was born of settler colonialism and Indigenous dispossession. In what is now downtown Atlanta, a railroad terminus for the Western Atlantic Railroad that opened up expansion to the West was established in 1837. Settlers occupied land that was forcibly taken from the Creek Nation in 1821 and at its founding, forced removal of the Cherokee from North Georgia was underway. The settlement was formally chartered as Atlanta in 1847 and began to grow as a trade and commercial center given its position at the confluence of several railroads (Rutheiser, 1996). Much of Atlanta was burned in the Civil War. McCreary and Milligan (2018: 5) point to “enduring forms of socio-ecological segregation” engineered into the city during its “rebirth” in the postbellum era when Atlanta was named the state capital

and quickly began to grow as a transportation hub and commercial capital of the Southeast. Electricity powered the modernization of the “New South” city which promised shared economic property and social uplift under a strict white supremacist racial hierarchy (Cater, 2019; Gaston, 2001; Rutheiser, 1996).

Electrification and the electric streetcar service provided by the city’s early electric companies grew with the city and influenced racial and class segregation. Streetcars fostered suburbanization by connecting wealthy, white residential enclaves to the central business district while also shaping daily commuting patterns for Black domestic workers (Blass, 1991; Kuhn et al., 1990). Between 1880 and 1910, Atlanta’s population swelled. The number of Black residents tripled while the share of white residents grew even more to comprise two-thirds of the population. Population growth contributed to pressure for jobs and municipal services (Mixon, 2005; Rutheiser, 1996). Streetcars, theaters, night clubs, and avenues illuminated with electric lights also created new social spaces of racial mixing. Hunter (1997: 99) describes that “the streetcar replaced the railroad as the most visible icon of the aspiring metropolis and became one of the first institutions tainted by official Jim Crow regulations” when the Georgia legislature adopted a measure to enforce racial segregation on public transport in 1891 (Bacote, 1959; Reed et al., 2012). Black residents led numerous boycotts between 1892 and 1906 when streetcar operators tried to institute the law, leading, at first, to limited enforcement by the Georgia Power predecessor, the Georgia Railway and Electric Company, which was interested in maximizing ridership. Populist politicians and newspapers responding to and riling up racist sentiment denounced that white workers had fallen into the “hands of grinding monopolies” and urged the municipalization of the Company (The Atlanta Constitution, 1906).

Racial tension on the electric streetcars came to a head in the 1906 Atlanta race riot, which was caused in part by sensationalist newspapers that reported false stories of alleged assaults by Black men on white women. On the night of 22 September 1906, mobs of white men killed between 26 and 47 Black residents. Mixon (2005: 95) observes that “white rage was focused upon three public areas where blacks and whites interacted as equals on streetcars and in the two entertainment districts”. In the aftermath of the riot, the white elite of Atlanta began to work with Black community leaders in an effort to improve the city’s image and restore order, however, measures to prevent further violence expanded race-based zoning through racial covenants and a proposed racial segregation ordinance (Kruse, 2007; Lands, 2009).

Electric utilities again played a part. City and utility officials were slow to extend streetcar and transportation service, streetlights, parks, and other public services to Black neighborhoods, even as transit service was made available to new white suburbs (Bayor, 1996; Mixon, 2005). Many Black residents refused to ride the streetcars and buses where they faced harassment and violence from white passengers and the Georgia Power employees who operated streetcars, trackless trolleys, and buses (Cherup, 2014; Kuhn et al., 1990). Others petitioned the Company and public regulators for streetcar and bus lines. When service was made available to transitioning neighborhoods and new Black housing developments in the suburbs, Black residents faced high prices for cross-city transfers. One resident wrote the mayor to protest price gouging and argue that Black residents moving in search of better housing should not be penalized with excessive transport fares, noting that “Many steady, hard-working colored couples have long wanted to buy lit-new clean houses instead of living at a rental of over fifty dollars monthly in half of a dilapidated house discarded by white people” (Kruse, 2007: 111). High transport fares were a barrier to Black homeownership in addition to intimidation, extra-legal violence, redlining, racial covenants, and other zoning measures that restricted where African Americans could purchase homes. Georgia

Power sold its transit system that helped to perpetuate racial difference and further segregation in 1950; however, its impact on the city continues to reverberate through the operation of the utility.

The shape of the electrical utility also took form following the riot as white working-class customers rallied to demand a public take-over of the electrical network in part to enforce racial segregation laws. Cater (2019) argues that regulation under the Commission was a compromise measure to protect the private property interests of electric company. When a bill was proposed in the General Assembly to expand the powers of the state Railroad Commission, the streetcar operators requested to be included (The Atlanta Georgian and News, 1907a). Company founder HM Atkinson had been a proponent of regulating electricity in the South as a member of the National Electric Light Association's Legislative Policy Committee, which organized investor-owned, private electric providers to protect the emerging private power industry. In the first decade of the 20th century, municipal power companies grew at double the rate of investor-owned corporations like the Georgia Railway and Electric Company as cities organized public water, transportation, and electricity service (Munson, 1985). The National Electric Light Association studied the example of the railroads and determined public regulation could counter competition from municipal power and populist efforts to municipalize private companies. Private electricity providers asserted that electricity was a "natural" monopoly such that one company would provide more efficient service than multiple competitors running competing power plants and transmission lines. To prevent monopoly abuses, the electric companies would submit to regulation by state agencies (Beder, 2003; Hirsh, 1999; Hughes, 1993).

Georgia became one of the first states to require state-level regulation of investor-owned electric companies (see Beder, 2003). However, unlike in other states where the governor appointed regulators, commissioners in Georgia would be elected. The expansion of popular control over electric companies through the Commission was followed by an amendment to the state constitution in 1908 to disenfranchise Black voters. Regulation proved sufficient to win over the Company's strongest opponents, including those in the press. The Atlanta Georgian and News (1907b) lauded the legislature for adopting measures that "established white supremacy" through Black disenfranchisement and "enthroned a commission" for the regulation of the railroads and utilities. These actions responded to "popular demands for the enlargement of white democracy" (Cater, 2019: 51) and regulation also worked to the benefit of the utility company.

The Georgia Railway and Electric Company consolidated with other companies across the state to become Georgia Power in 1926 and has since worked closely with the five Public Service Commissioners, who are elected on a statewide basis, to regulate the networks of electricity capital that render electricity saleable and profitable. This regulatory framework formalized the utility as not a part of, but rather acting within the purview of state government to generate and transmit electricity. The most important of the protections offered to the regulated monopoly was the noncompetitive service territory that insured demand for the Company's product. Harrison (2013b: 178) argues this "enabled sustained economic growth" because "[i]nvestment in new generation was suddenly much safer, as state utility commissions essentially guaranteed profits for investors". This relation of accumulation with state oversight under the need to maintain continual electricity service in perpetuity is the means for the reproduction of racialized electricity capital.

The profit of the Company is subject to Commission oversight. The Commission regulates the fuel mix that Georgia Power uses to produce electricity (i.e. how much coal, solar, gas, nuclear production will be built and used) and how much they charge for it.

Electricity is measured and sold in kilowatt hours (kWh) of illumination or machine operation and customers charged for the amount of energy they use over time (Yakubovich et al., 2005). Given that electricity is difficult to store, to make it a profitable commodity required a diversity of customers with different energy demands throughout the day and year to maximize the use of a power generating station (Hughes, 1993). Georgia Power offered discounted rates to large users and industrial customers able to switch their production to times when there were fewer demands on the electric grid. The elected Commission determines the rates structures that set the amounts charged to these different classes of industrial, residential, and municipal customers. Customers within the same class are also charged less per kWh as they use more energy through declining block rate structures. In practice, this rate structure means that “[t]he more electricity that is bought, the cheaper it becomes” such that “Poor Black residents . . . essentially subsidize the gross electricity needs of industries and agribusiness” (Marable, 1981: 12).

Rates are not based on the cost of producing electricity, but rather on the capital expenditures utilities take on to build, finance, and operate electrical infrastructure (Harrison, 2013a). The Commission scrutinizes Georgia Power’s expenses and allows the utility to recover the costs and investments deemed appropriate on the electric rates charged to customers as part of its mandate to ensure that customers are served by “financially viable and technically competent companies” (Georgia Public Service Commission, 2020). From the baseline of necessary expenditures, the Commission determines a rate of return that the Company can receive (Kihm et al., 2015). The allowable rate of return, which customers also pay for on their electricity bills, is intended “to ensure that shareholders continue to provide capital for investment” while not being so high as to provide monopoly profits for the utility (Jamison, 2005: 3). This accounting design incentivized constant construction and constant advertising to generate new demand for electricity and justify increasing capitalization. Hirsh (1999) names this business strategy the “grow and build” model that also reflected “finance capitalism’s direct relationship with the economic development of the colonial economy of the South” (Marable, 1981: 10).

The basis of creating shareholder value for the corporate and investor-owned utility stems from the need to maintain the security of electrical production into the future. Just as “finance capital orients itself toward projecting *future* value creation”, claims over future revenue become imbued with property rights and are traded as stocks and bonds (Huber, 2018a: 155). Thus, Georgia Power shareholders who own Company stocks or bonds claim a property right backed by a guaranteed revenue stream from ratepayers through the sale of kilowatt hours in a noncompetitive service territory statutorily-assured and regulatorily-maintained by the Commission. Public regulation becomes “explicitly oriented to the promotion and stabilization” of electricity capital (Mann, 2010: 185). In setting rates for the 2.6 million customers in the Georgia Power service territory, the Commission stabilizes accrual of value to shareholders by securing the price the utility receives for the electricity demand of Georgia residents into the future. In the following section, I analyze the operation of electricity capital in the context of Georgia Power’s “grow and build” strategy—carried out under the auspices of the Commission. In addition to the transit system that perpetuated the geographic, racialized uneven development of the city, Georgia Power’s costly infrastructure investments and extensive marketing campaigns to promote Georgia’s business climate and expand electricity consumption have been financed through differential electricity rates and fee structures that extract profit from residential customers while exacerbating uneven energy burden in Atlanta.

A citizen wherever we serve

To grow electricity demand, Georgia Power promoted energy intensification of homes and businesses through advertisements for air conditioning, electric water heating, kitchen appliances, and subsidized sales of machinery in addition to discounted rates for large power consumers (Cater, 2019; Wright, 1957). Electricity modernized existing systems of production, changing the material processes of manufacturing, transportation, finance, and information and communication technology. In a speech before the Edison Electric Institute in 1926, Georgia Power President Preston Arkwright coined the Company motto to be “a citizen wherever we serve”, emphasizing the ways in which electricity service, and regulation intersect in everyday life. He said, “We enter intimately into all the life of the community, into all the homes and all the stores and all the industries and all the activities. There is no other business that does it so generally, so intimately as the business of ours” (Taft and Heys, 2011: 62). These intimate circuits imply a personal relationship between the utility as a community member, a citizen, and a welcome visitor to the customer. Electricity is such a part of everyday life that Bakke (2016: 291) argues the electric grid “is my intimate”, capturing the proximity of not only the utility, but the apparatus of infrastructure, regulation, and finance that reaches into the interior and private spaces of home.

Electrification reworked already racialized urban geographies by domesticating “good nature” that “became part of (and a basic precondition for the construction of) the protected inside of the modern home” (Kaika, 2004: 270). Georgia Power marketed the transformation to household reproductive labor through advertisements for appliances to the “modern” housewife. A refrigerator could save “time and money”, and with a washing machine, a housewife could “wash without work” (Georgia Power Company, n.d.). Advertisements portrayed a gendered and racialized understanding of the household, depicting white women who could care more effectively for their families and “turn back the clock” with electricity because “Drudgery, crushing out youth, began to vanish as woman’s penalty for her sex when the electric light was first introduced into the home” (Georgia Power Company, 1933). Yet, advertisements did not portray Black women who performed much of this work in white households and whose jobs in the demanding fields of domestic and laundry service were eliminated or transformed through electrification (see Hunter, 2001; Kuhn et al., 1990).

The transformation of social reproductive labor through electrification was mirrored in other forms of work. Air conditioning and refrigeration made the South more attractive and Southern Company recruited residents and industry to the region under the banner “Move Forward, Move South” (Taft and Heys, 2011). This aspirational promotion of an electric way of life wedded to high electricity consumption advanced a particular form of labor relations articulated to the utility’s model of economic development. In 1927, following the consolidation of Georgia Power, an annual report was issued to tell the history of the Company and share the bountiful advantages of Georgia, including its workforce:

The State is blessed with a supply of laborers of a pure Anglo-Saxon strain, and both skilled and unskilled labor is available in abundance. Out of a population of more than 3,000,000 less than 17,000 Georgians are foreign born, thus assuring a clean and wholesome American atmosphere... Strikes are almost unknown in Georgia. (“Georgia Power Company Yearbook” 1927: 51)

The Company pictured their own, segregated workforce at company picnics and baseball games to illustrate the pleasant quality of life potential employers would find. However, this

racist depiction of modern Georgia powered by electricity espoused both anti-immigrant sentiment and erased the relations between white and Black workers Georgia Power employed (Georgia Power Company, 1941).

Annual reports were coupled with advertisements in newspapers across the country that boasted of the climate and industrial potential of the South and brochures targeted to specific industries. The utility aided in recruiting poultry, defense and airplane manufacturing, and mills to the Atlanta region. For example, films tailored to the poultry industry encouraged the scaling up poultry production in an emerging field that would become one of the biggest industries in Georgia (The Atlanta Constitution, 1946; see also Freshour, 2020). Marable (1981: 13) described these effects in terms of the racial transformation of the agricultural workforce as “Black farmers are driven off the land, coerced to work at low wages while paying skyrocketing utility bills”. Technological advances powered and promoted by the utility reproduce the labor reserve while creating new needs for commodified electricity.

Georgia Power was not only advertising its electricity, but a New South model of business progressivism based on low labor costs and low taxes. A comprehensive study of new manufacturing plants in the South produced by the National Planning Association reported that with few exceptions, “electric power alone attracts few industries to a region”, but the “general locational importance of electric power is best described as ‘improving the industrial environment’” (McLaughlin and Robock, 1949: 60). Natural resources, access to markets in growing Southern cities, ports and rail lines, and labor availability and attitude were the reasons cited for plant location. The age, gender, race, and skill level of workers were also taken into account. A subsequent survey of town mayors and chamber of commerce officials reported that Georgia Power and the state Department of Industry and Trade were the most important economic development agencies in Georgia (Cobb, 1993: 219). Where electricity might not have been the prime reason for relocation, electricity capital was an essential feature in the form of Southern industrialization.

Electrification transformed the spatial extent of manufacturing and reorganized production that no longer had to be arranged around a central power source. Rather, Hamer (1980: 9) describes, electricity made it possible to distribute energy along an assembly line “to position worker and machine to fit the optimal flow of materials through a plant. That arrangement, especially where mass production was concerned, no longer tolerated crowded, multi-storied settings. It called instead for land-extensive settings”. The demand for space to efficiently lay out electrified plants pushed the borders of Atlanta, already a spatially extensive city, further outward as plants and office buildings located in the suburban fringes of the city—just as Black Atlantans demanded a greater share of the social wage—contributing with white flight to the sprawl that stretches across the 29-county metro area of Atlanta today (Bullard et al., 2000; DiGiacomo, 2008; Kruse, 2007). Electricity powered this new suburban expanse, while Georgia Power itself built a new headquarters building downtown as it remained an important booster for Atlanta as one of the “old-guard members of the business elite” (Kruse, 2007: 243).

In the post-war era, workers following jobs relocated to the South and West. Atlanta’s population increased in population from 302,288, to 426,821 residents between 1940 and 2010 while the metropolitan area increased from just over 442,294 residents to more than 5.2 million residents. Metro Atlanta’s population is still growing faster than anywhere else in the nation except the fellow Sunbelt cities of Dallas, Phoenix, and Houston (U.S. Census Bureau, 1940, 2019). The suburbs have grown increasingly racially diverse and racially integrated over the last 50 years, yet Atlanta retains the most unequal income distribution of any major US city (Stokes, 2018).

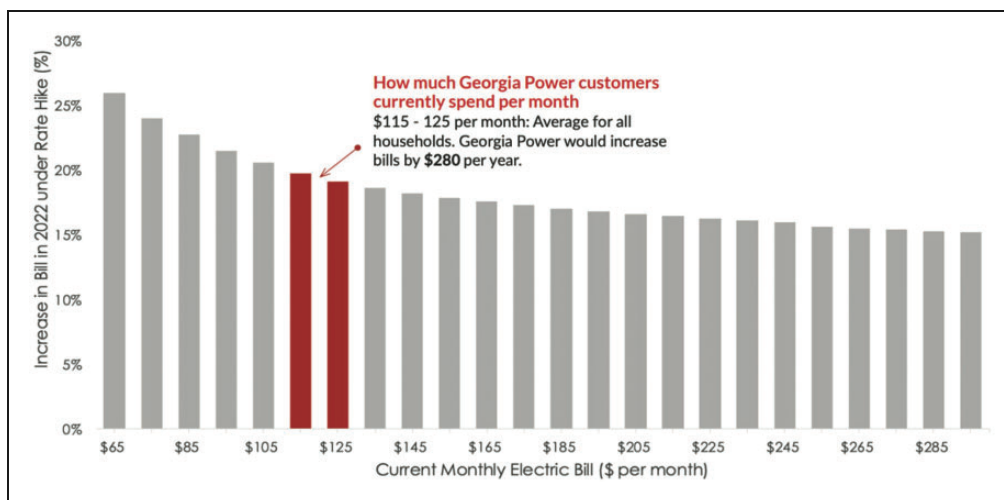
During the same period, Georgia Power's total annual electric sales increased from 1.75 billion kWh to 88.8 billion kWh (Georgia Power Company, 1947, 2012; Taft and Heys, 2011). Change in average residential demand for Georgia customers increased from just over 600 kWh per year in 1930 to about 15,000 kWh per year in 2009 (Georgia Power Company, 1947; U.S. Energy Information Administration, 2009). To meet this demand, Georgia Power built eleven coal-fired power plants, numerous hydropower and gas plants, and two nuclear plants. Since 2010, the number of kilowatt hours that the utility sells has flat-lined given increases in energy efficiency. Nonetheless, Georgia Power has continued to invest in costly construction projects with the expansion of the Plant Vogtle nuclear reactors as part of its grow-and-build strategy given that electricity rates, and hence profit, are calculated based on the capitalization of the utility. This development strategy has led to environmental and racial injustice and further exacerbated high energy burden for Atlanta residents. While Georgia Power and the Commissioners boast that the state has among the lowest *rates* in the U.S., many of the increasing costs for the utility have been bundled into riders and fees (Interview 4; Interview 5; Interview 35, 2019). These tariffs help to finance solar and energy efficiency and environmental compliance in addition to the nuclear construction cost recovery fee that goes directly to the delayed and over-budget Plant Vogtle that already adds about \$100 per household annually (The Atlanta Journal-Constitution Staff Reports, 2017). These fixed fees that customers have to pay regardless of use disproportionately affect low- and fixed-income customers.

Energy burden, which describes the ratio of household energy costs to income, is of particular concern for Black neighborhoods and communities of color in Atlanta. Atlanta has the fourth highest energy burden in the U.S. Median electricity burden in historically Black neighborhoods in southwest Atlanta is more than twice that of the wider city (Drehobl and Ross, 2016). This racial disparity in energy affordability is true across the US (U.S. Energy Information Administration 2018). Historical and on-going patterns of housing and employment discrimination mean that people of color are more likely to rent and more likely to live in lower quality housing and in neighborhoods that are hotter requiring more energy to cool homes (Lewis et al., 2020; Plumer et al., 2020). However, racial disparities in energy burden are not taken into account in energy regulation in Georgia, where utility financing overseen by the Public Service Commission prioritizes the financial viability of the Company. The Commission has not addressed the regressive pricing of energy or required much in the way of targeted community or efficiency investments from the utility to begin to address inequity in the built environment (see Relf et al., 2020).

In 2019, the Partnership for Southern Equity organized the *Fight the Hike* campaign to bring together advocates from environmental, faith, racial justice, and environmental justice organizations. This organizing highlighted the relationships through the electric grid that connect Georgians living under the shadow of power plants or in the watershed of coal ash ponds to advocates for renewable energy and customers facing high energy burdens. The coalition has worked to secure energy equity for Georgia meaning “the fair distribution of benefits and burdens from energy production and consumption” (Partnership for Southern Equity, 2019b) and to advocate with low-income communities and communities of color for a more just energy system in the regulatory proceedings before the Commission.

Fight the hike for fair energy now!

In June 2019, Georgia Power released its proposed rate case that called for an increase in rates to recover an additional \$2.2 billion over three years. The Company argued that these



campaign that she had been a part of over the last several months and entered into the record some of the stories of people who could not be there that morning. Smith stated:

I've spoken to hundreds of Georgians over the last few months and the unanimous response is no increase. Senior citizens rely fixed pensions and Social Security incomes that don't allow for increase having to decide between medicine that means splitting pills or skipping days or not getting their medicine all together. College students reflect on parents who are struggling to underwrite their education. Pastors lament benevolent funds that are insufficient to meet the needs of those in their communities and their parishioners who face disconnect. Parents who work 50 to 60 hours a week and cook meals and assist with homework and do whatever is necessary to maintain warm stable households for their families, for their children. Young working men and women who have just entered the workplace and attempt to navigate entry-level careers, which means entry-level wages while trying to pay down student loans and all the bills that come with this new independence they ask, and excuse my language, what the hell? literally that's what they're asking. (Smith, 2019)

Her testimony demanded that the Commission—comprised of four white men and one white woman—bear witness to choices that working-class, Black people on whose behalf she was speaking face over kitchen tables and in church basements. Bringing every moment of social reproduction that demands electricity into focus, she insisted that:

you know them. You know that one out of six Georgians live in poverty. You know that Georgia is one of the poorest states in this country and you know that those numbers don't tell the stories of the folks who vote for you because they're more than just statistics they're more than just folks who fall into a median level or [low-]income household. I'm here this morning on behalf of these folks to remind you that we know that you commissioners are aware. (Smith, 2019)

She reminded the commissioners that despite their long-standing and cozy relationship with Georgia Power, they are responsible to the people of Georgia who elect them. She asked the Commission to represent their constituents and the people, whose stories she brought into the room. She insisted that the vital importance of electricity to everyday life is the reason why the Commission regulates the utility, rather than leaving it to the market alone, and they should do so in a way that ensures all people are able to benefit from this service.

Her Councilperson, Khalid Kamau, from South Fulton, which, he explained is “the Blackest big city in America”, spoke next. He explained that:

African Americans spend, because of this racial wealth gap that exists in America, we spend ... more on energy costs than other communities,¹ and simply put my residents, especially my seniors on fixed incomes, cannot afford this hike it puts me in a really uncomfortable position as an elected official to have to explain to them this hike when the SEC reports I've seen show that Georgia Power has made over three billion dollars in the past three years. (Kamau, 2019)

Councilperson Kamau's testimony again articulated these relations—naming that energy-burdened households who Smith brought into the room pay more than is fair as a percentage of their income. In my own testimony, I asked the Commission to consider how the proposed increase would affect students, low and fixed-income people, and renters in particular who are the least able to adjust their electricity usage and exacerbate housing insecurity in gentrifying cities like Athens and Atlanta for those already struggling to pay high bills (Luke, 2019). These statements questioned what reasonably-priced electricity means for the

Commission—in the absence of any guidance from the Company on what affordable electricity prices are—when the Commission seemed poised to mandate increases that threaten the health and security of Georgians, yet still allow Company officials and shareholders to profit.

In the next meeting of the Commission on the rate case on 12 December 2019, Chairman McDonald announced that a stipulation to Company's proposed rate schedule had been filed by Georgia Power in agreement with the Georgia Industrial Group, the Commercial Group, the Georgia Association of Manufacturers, Kroger, the Metropolitan Atlanta Rapid Transit Authority, and the City of Atlanta. These large commercial, industrial, and public interests negotiated specific rates with the utility that they would be charged for their operations (Williams, 2019). Importantly, these levels are usually lower than the rates offered to residential customers who pay the highest cost per kWh. Interveners who had represented these and other parties were called to present their final opinions on the rate case before the Commission would issue its decision. Many spoke against the stipulation or to issues that had not yet been resolved, such as the allowable rate of return for the Company and the proposed fees for residential customers, before the Public Interest and Advocacy staff for the Commission who are charged with reviewing the filings and making a recommendation to the Commissioners on behalf of the citizens of Georgia stood up to speak.

A lawyer from the Public Interest and Advocacy staff for the Commission explained why their office had not signed on to the stipulation brokered between the companies and its biggest customers. While he expressed, “no doubt that the parties who have signed on believe they're getting a benefit with result with respect to rate design, . . . it certainly appears that in return for that favorable rate treatment, the parties have agreed to a [capital] structure, particularly the earnings band that would provide ratepayers with significantly less benefit” (Docket No. 42516. . . Advisory Staff's Recommendation, 2019). Under this agreement, the largest users received favorable electric rates and signed off on higher residential costs, assenting also to a high rate of return for the Company. Georgia Power would be allowed to make \$330 million each year above the national average in earnings for investor-owned electric utilities before being asked to return any of that profit to customers.

In their 2017 annual report, Southern Company articulates the ways in which electricity powers the economy of the South and invites shareholders to “Imagine creating value”. The report continues: “Our commitment to keep customers at the center of all we do has been the cornerstone of our business throughout Southern Company's history. We believe this commitment ultimately translates to value creation for investors, and this has been borne out in the results we've delivered over time” (Southern Company, 2018: 24). The Commission attorney called into question this assertion, noting that “if the interest of ratepayers, the interests of customers are the same [as the Company], it shouldn't take over three hundred million dollars a year to incentivize the company to act in the customers' best interest” (Docket No. 42516. . . Advisory Staff's Recommendation, 2019). In practice, the Commission attorney observed that value creation for investors depends on the decision of the elected Commission who are charged with representing the public and who have the authority to reject an agreement devised by Georgia Power to determine instead a rate structure that would secure more affordable electricity for all Georgians.

A Georgia Power representative responded to the Commission staff, and the Chairman invited final remarks from the public. The Executive Director of Georgia Women for a New Direction offered the last comment based in her experience working with residents of southwest Atlanta:

Living in a state that is part of a region that already has and will continue to bear the economic and environmental burdens of climate change, it is unconscionable to think that you all, our

public service commissioners, would knowingly decide to pour gasoline on the fire and require Georgia residents to pay even more to be impacted in a worse way. These are your neighbors, these are your constituents, and it feels as though you are throwing us under the bus. . . . Your decisions show in practice the values of the Public Service Commission – some people are more valuable than others. (Harper, 2019)

Her testimony identified that a racialized division of labor that has historically unfolded in Georgia is further reinforced through the rate case proposal and stipulation signed onto by the largest customers. This measure reenacts the same pattern of “low wages” for residents and “low energy costs” for industry that mean high costs for poor and working-class people who are disproportionately Black and Latinx in Georgia.

Despite thousands of people speaking in opposition to the rate hike, the Commission approved the stipulation on 17 December 2019 and agreed to the rate structure requested by Georgia Power’s largest customers in a way that further institutionalizes the logics of racialized electricity capital that allow the Company to profit while exacerbating energy burden for the poorest customers. The Public Service Commission voted to increase the basic service fee for residential customers from \$10 to \$14 a month over three years, raising the average bill for customers using the smallest amount of electricity by about \$6 a month (Weaver, 2019). While not authorizing the full amount that the Company requested, the decision also granted the Company a high rate of return. An investment guide that Sierra Club volunteers circulated in the week after the decision reported it was a good time to invest in the Georgia Power’s parent company, Southern Company, because the rate of return is so generous, the stock should be seen “as an investment-grade bond with the state’s Commission serving as a type of implied government insurance for its dividend” (Wald, 2019). The dividend to stockholders might be insured through the Commission and yet is unevenly extracted from Georgia customers each time they flip on a switch.

Reimagining the utility for an equitable energy future

Through a case study of the electric utility, Georgia Power, and the effect of its growth on Atlanta, I have shown how electricity capital powers racial capitalism through intersecting processes of spatial segregation, labor exploitation, and the devaluation of life in the exposure of poor and working-class people to pollution, costly bills, and utility shut-offs. Rejecting the designation of some people as less valuable than others to secure the Company’s financial stability, the Partnership for Southern Equity and allied Atlanta community groups organized around the issue of energy burden that has emerged as a direct result of the Company overcharging customers through utility rates and fees. This campaign enacted a demand for a more democratic energy system to challenge the regulatory structure that supports the racial capitalist drive for continual expansion of electricity capital at the cost of ordinary customers.

In her critique of racial capitalism, Gilmore (2002: 16) conceptualizes “nonfatal power-difference couplings” that require attention to mutuality. Considering the intimate moments and relations connected through the electric grid offers a strategic organizing logic to continue to work toward the abolition of system that reproduces racism in creating vulnerability to premature death. Where electricity pulls various stakeholders together, the profit of some is linked to the devaluation of others. Naming the racialized and gendered violence of uneven energy geographies that cohere in socio-ecological relations across the electric grid is necessary to build solidarity around decommodifying energy, securing access to it as a

basic need required to live a dignified life, and dismantling the utility as a regulatory apparatus that authorizes energy poverty.

In working to change the unequal cost of electricity that customers in Atlanta pay, the campaign to *Fight the Hike* imagined a radically different energy system. In the months since the rate case was decided, organizers who were part of this campaign have continued to fight the racist political economy of electricity on multiple fronts. Their efforts aim to dismantle state institutions that sustain accumulation into the future without protecting residential customers from the excesses of financial capital that move through the power plant, up the poles, along the transmission lines, down the converter boxes, and into the homes of people paying electric bills to Georgia Power. The coalition that came together to *Fight the Hike* continues to seek more investment in demand-side management programs for residential energy efficiency, expansion of on-bill financing for energy efficiency improvements, and a percent-of-income payment plan to cap electricity bills for low- and fixed-income people (Interview 42, 2020). These measures to address uneven energy burden are particularly important in advance of Georgia Power's next rate case when Plant Vogtle may be complete, and its construction costs added to the rate base.

In addition to regulatory action, in 2020, four Black voters filed a lawsuit to challenge the electoral districts for the Commission and method of at-large voting for Commissioners under the Voting Rights Act. The suit argues that Black people make up more than 30% of Georgia's population, however, at-large voting means that the statewide white majority can "defeat the candidates preferred by black voters" (*Rose v Raffensperger* complaint, 2020). As part of the national uprisings for racial justice in summer 2020, the People's Public Service Commission organized by We The Plug Tho also launched a voter education and outreach initiative to talk to Atlanta residents about the little-known Commission, address the utility shut-offs for nonpayment as a result of the economic crisis caused by the COVID-19 pandemic, and support direct payment of bills as energy reparations (People's PSC, 2020). This advocacy, educational, and electoral work continues the organizing of the *Fight the Hike* campaign to make visible the racialized inequity in the energy system and the intimate connections that people have to the state and Company through their everyday uses of electricity. In questioning the accumulation paradigm that underlies the operation of racialized electricity capital, organizers point the way to an energy system that could power life-affirming relations and support community needs.

Highlights

- Electricity capital is a state-supported circuit of capital accumulation that reinforces racialized uneven development of Atlanta.
- Coalition organizing for energy justice builds on the diverse relations that emerge through the electricity grid to challenge unfair rate structures that exacerbate poverty in Atlanta.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research has been funded by the National Science Foundation Doctoral Dissertation Research Improvement Award (#1932905).

ORCID iD

Nikki Luke  <https://orcid.org/0000-0001-6170-4982>

Note

1. This refers to the share of income spent on energy costs. However, energy costs are also higher as a percentage of home square footage for lower income people, and especially renters, who more often live in less energy efficient homes (see Reames, 2016).

References

- Acosta García N and Farrell KN (2019) Crafting electricity through social protest: Afro-descendant and indigenous Embera communities protesting for hydroelectric infrastructure in Utría National Park, Colombia. *Environment and Planning D: Society and Space* 37(2): 236–254.
- Bacote CA (1959) Negro proscriptions, protests, and proposed solutions in Georgia, 1880-1908. *The Journal of Southern History* 25(4): 471.
- Baker L and Phillips J (2019) Tensions in the transition: The politics of electricity distribution in South Africa. *Environment and Planning C: Politics and Space* 37(1): 177–196.
- Bakke G (2016) *The Grid: The Fraying Wires between Americans and Our Energy Future*. New York: Bloomsbury.
- Barnum DT (1970) The Negro in the bituminous coal mining industry. In: *Negro Employment in Southern Industry: A Study of Racial Policies in Five Industries*, IV:v–72. Studies of Negro Employment. Philadelphia, PA: Industrial Research Unit, Wharton School of Finance and Commerce.
- Beder S (2003) *Power Play: The Fight to Control the World's Electricity*. New York: The New Press.
- Blackmon DA (2008) *Slavery by Another Name: The Re-Enslavement of Black Americans from the Civil War to World War II*. New York: Anchor Books.
- Blass K (1991) Midtown along peachtree: A pictorial history. In: *Atlanta History*, pp. 21–42, 35–36.
- Bledsoe A, McCreary T and Wright W (2019) Theorizing diverse economies in the context of racial capitalism. *Geoforum*, July, S0016718519302179.
- Bouzarovski S and Tirado Herrero S (2017) Geographies of injustice: The socio-spatial determinants of energy poverty in Poland, the Czech Republic and Hungary. *Post-Communist Economies* 29(1): 27–50.
- Bowers P (2019) Docket No. 42516: Georgia Power Company's 2019 Rate Case. Atlanta, GA. Available at: www.youtube.com/watch?v=aPquuso44kA&t=1531s (accessed 2 May 2020).
- Bridge G (2015) The hole world: Scales and spaces of extraction. *Scenario Journal*. Available at: <http://scenariojournal.com/article/the-hole-world/>
- Bridge G, Bouzarovski S, Bradshaw M, et al. (2013) Geographies of energy transition: Space, place and the low-carbon economy. *Energy Policy* 53(February): 331–340.
- Brown KL, Murphy MW and Porcelli AM (2016) Ruin's progeny: Race, environment and Appalachia's coal camp blacks. *Du Bois Review: Social Science Research on Race* 13(2): 327–344.
- Bullard R, Johnson GS and Torres AO (2000) *Sprawl City: Race, Politics, and Planning in Atlanta*. Washington, D.C: Island Press.
- Cater C (2019) *Regenerating Dixie: Electric Energy and the Modern South*. Pittsburgh, PA: University of Pittsburgh Press.
- City of Atlanta Mayor's Office of Resilience (2018) Clean Energy Atlanta: A vision for a 100% clean energy future, <https://45tkhs2ch4042kf51flakeju-wpengine.netdna-ssl.com/wp-content/uploads/2019/03/clean-energy-plan-2019.pdf> (accessed 5 March 2020).
- Cobb JC (1993) *The Selling of the South: The Southern Crusade for Industrial Development, 1936-1990*. Urbana, IL: University of Illinois Press.
- Coronil F (1997) *The Magical State: Nature, Money, and Modernity in Venezuela*. Chicago, IL: University of Chicago Press.

- Cowen D (2019) Following the infrastructures of empire: Notes on cities, settler colonialism, and method. *Urban Geography* 41(4): 469–486.
- Curley A (2018) A failed green future: Navajo green jobs and energy ‘transition’ in the Navajo nation. *Geoforum* 88(January): 57–65.
- Davis AY (1983) *Women, Race & Class*. New York: First Vintage Books.
- Davis AY (2003) *Are Prisons Obsolete?* New York: Seven Stories Press.
- DiGiacomo R (2008) Sprawling Atlanta seeks new routes to the future. *Grist* (blog), 15 May 2008, <https://grist.org/article/atlanta2/>
- Docket No. 42516: Georgia Power Company’s 2019 Rate Case (2019) Consideration of Commissioner Advisory Staff’s Recommendation. Available at: www.youtube.com/watch?v=cYpJ5Hsq_pM
- Drehobl A and Ross L (2016) *Lifting the High Energy Burden in America’s Largest Cities: How Energy Efficiency can Improve Low Income and Underserved Communities*. Washington, DC: American Council for Energy-Efficient Economy.
- Du Bois WEB (1935) *Black Reconstruction in America, 1860-1880*. New York: The Free Press.
- Estes N (2019) *Our History Is the Future: Standing Rock Versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance*. London: Verso.
- Fairchild D and Weinrub A (2017) *Energy Democracy: Advancing Equity in Clean Energy Solutions*. Washington, DC: Island Press.
- Franklin M, Kurtz C, Alksnis M, et al. (2017) Lights out in the cold: Reforming utility shut-off policies as if human rights matter. NAACP Environmental and Climate Justice Program. Available at: www.naacp.org/wp-content/uploads/2017/12/Lights-Out-in-the-Cold_NAACP.pdf (accessed 23 April 2018).
- Freeberg E (2014) *The Age of Edison: Electric Light and the Invention of Modern America*. New York: Penguin Books.
- Freshour C (2020) Poultry and prisons. *Monthly Review* (blog), 1 July 2020. Available at: <https://monthlyreview.org/2020/07/01/poultry-and-prisons/> (accessed 26 August 2020).
- Garba T (2020) ‘The Twin Fetish’: On political ontology and COVID-19. *Center for Research in Cultural Studies* (blog), 17 July 2020. Available at: www.uwinnipeg.ca/crics/covid-19-and-cultural-studies/the-twin-fetish-on-political-ontology-and-covid-19.html (accessed 24 August 2020).
- Gaston P (2001) *New South Creed: A Study in Southern Mythmaking*. Montgomery, AL: NewSouth Inc.
- Georgia Power Company (1933) Along came youth. *The Southern Israelite*, September 1933.
- Georgia Power Company (1941) Memorandum of Agreement between Georgia Power Company and Amalgamated Association of Street, Electric Railway & Motor Coach Employees of America, Division No. 732. Effective May 1, 1941 Expires April 30, 1943. MS 363, Box 3, Folder 3. Kenan History Center.
- Georgia Power Company (1947) Annual Report 1947. Georgia Power Business Files, Box 1. Kenan History Center.
- Georgia Power Company (2012) 2011 Annual Report. Available at: www.georgiapower.com/content/dam/georgia-power/pdfs/call-outs-pdf/gpc-2011-annual-report.pdf (accessed 1 September 2020).
- Georgia Power Company (n.d.) Putting electricity to work on your farm. MS 363, Box 3, Folder 4. Kenan History Center.
- Georgia Power Company Yearbook (1927) Atlanta, GA. MSS 363, Box 1. Atlanta History Center.
- Georgia Public Service Commission (2020) Home. Georgia Public Service Commission. Available at: <https://psc.ga.gov/>
- Gilmore RW (2002) Fatal couplings of power and difference: Notes on racism and geography. *The Professional Geographer* 54(1): 15–24.
- Gilmore RW (2007) *Golden Gulag: Prisons, Surplus, Crisis, and Opposition in Globalizing California*. Berkeley, CA: University of California Press.
- Gilmore RW (2017) Abolition geography and the problem of innocence. In: Johnson GT and Lubin A (eds) *Futures of Black Radicalism*. London: Verso, pp. 226–240.
- Gilmore RW (2020) Ruth Wilson Gilmore on Covid-19, Decarceration, and Abolition Interview by Naomi Murakawa. Video from Haymarket Books. Available at: www.haymarketbooks.org/blogs/128-ruth-wilson-gilmore-on-covid-19-decarceration-and-abolition (accessed 25 May 2020).

- Hall S ([1980] 2021) Race, articulation, and societies in structured dominance. In: Gilroy P and Gilmore RW (eds) *Selected Writings on Race and Difference*. Durham, NC: Duke University Press, pp. 195–245.
- Hamer AM (ed.) (1980) Urban perspective for the 1980s. In: *Urban Atlanta: Redefining the Role of the City*. Atlanta, GA: Georgia State University, pp. 3–24.
- Harper L (2019) Docket No. 42516: Georgia Power Company's 2019 Rate Case. Consideration of Commissioner Advisory Staff's Recommendation. Available at: www.youtube.com/watch?v=cYpJ5Hsq_pM (accessed 16 December 2019).
- Harrison C (2013a) The historical–geographical construction of power: Electricity in eastern North Carolina. *Local Environment* 18(4): 469–486.
- Harrison C (2013b) 'Accomplished by methods which are indefensible': Electric utilities, finance, and the natural barriers to accumulation. *Geoforum* 49(October): 173–183.
- Harrison C (2016) Race, space, and electric power: Jim Crow and the 1934 North Carolina Rural Electrification Survey. *Annals of the American Association of Geographers* 106(4): 909–931.
- Harrison C and Popke J (2011) 'Because you got to have heat' - The networked assemblage of energy poverty in eastern North Carolina. *Annals of the Association of American Geographers* 101(4): 949–961.
- Harvey D (1978) The urban process under capitalism: A framework for analysis. *International Journal of Urban and Regional Research* 2(1): 101–131.
- Hilbert A and Werner M (2016) Turn up the heat! Contesting energy poverty in Buffalo, NY. *Geoforum* 74(August): 222–232.
- Hirsh RF (1999) *Power Loss: The Origins of Deregulation and Restructuring in the American Electric Utility System*. Cambridge, MA: MIT Press.
- Hornborg A, Cederlöf G and Roos A (2019) Has Cuba exposed the myth of 'free' solar power? Energy, space, and justice. *Environment and Planning E: Nature and Space* 2(4): 989–1008.
- Huber MT (2009) Energizing historical materialism: Fossil fuels, space and the capitalist mode of production. *Geoforum* 40(1): 105–115.
- Huber MT (2013) *Lifeblood: Oil, Freedom, and the Forces of Capital*. Minneapolis, MN: University of Minnesota Press.
- Huber MT (2018a) Resource geographies I: Valuing nature (or not). *Progress in Human Geography* 42(1): 148–159.
- Huber MT (2018b) Resource geography II: What makes resources political? *Progress in Human Geography* 43(4).
- Huber MT and McCarthy J (2017) Beyond the subterranean energy regime? Fuel, land use and the production of space. *Transactions of the Institute of British Geographers* 42(4): 655–668.
- Hughes, Thomas Parke. 1993. *Networks of Power: Electrification in Western Society, 1880-1930*. Baltimore: John Hopkins University Press.
- Hunter TW (1997) *To 'joy My Freedom: Southern Black Women's Lives and Labors After the Civil War*. Cambridge, MA: Harvard University Press.
- Hunter TW (2001) 'The women are asking for BREAD, why give them STONE?': Women, work, and protests in Atlanta and Norfolk during World War I. In: Eskew GT (ed.) *Labor in the Modern South*. Athens, GA: University of Georgia Press, pp. 102–134.
- Jamison MA (2005) *Rate of Return: Regulation*. Gainesville, FL: Public Utility Research Center.
- Kaika M (2004) Interrogating the geographies of the familiar: Domesticating nature and constructing the autonomy of the modern home. *International Journal of Urban and Regional Research* 28(2): 265–286.
- Kamau K (2019) Docket No. 42516: Georgia Power Company's 2019 Rate Case. Atlanta, GA. Available at: www.youtube.com/watch?v=aPquuso44kA&t=1645s (accessed 2 May 2020).
- Kempner M (2019) Georgia power bills could rise: \$2.2 billion rate increase proposed. Atlanta Journal Constitution, 28 June 2019. Available at: www.ajc.com/news/local/georgia-power-bills-could-rise-billion-rate-increase-proposed/RbrV522vtw0236tn2swIYO/ (accessed 14 December 2020).
- Kihm S, Lehr R, Aggarwal S, et al. (2015) *You Get What You Pay For: Moving Toward Value in Utility Compensation, Part 1, Revenue and Profit*. San Francisco, CA: America's Power Plan.

- King ML Jr (2012) King addresses the AFL-CIO Fourth Constitutional Convention (1961). *ChickenBones: A Journal for Literary & Artistic African-American Themes* (blog). Available at: www.nathanielturner.com/martinlutherking.htm (accessed 22 September 2019).
- Kruse K (2007) *White Flight: Atlanta and the Making of Modern Conservatism*. Princeton, NJ: Princeton University Press.
- Kuhn CM, Joye HE and Bernard West E (1990) *Living in Atlanta: An Oral History of the City, 1914-1948*. Atlanta and Athens, GA: Atlanta Historical Society and The University of Georgia Press.
- Kurtz HE (2009) Acknowledging the racial state: An agenda for environmental justice research. *Antipode* 41(4): 684–704.
- Lands LA (2009) *The Culture of Property: Race, Class, and Housing Landscapes in Atlanta, 1880-1950*. Athens, GA: University of Georgia Press.
- LeFlouria T (2011) ‘The hand that rocks the cradle cuts cordwood’: Exploring black women’s lives and labor in Georgia’s convict camps, 1865-1917. *Labor: Studies in Working-Class History of the Americas* 8(3): 47–63.
- Lennon M (2017) Decolonizing energy: Black lives matter and technoscientific expertise amid solar transitions. *Energy Research & Social Science* 30(August): 18–27.
- Lennon M (2020) Postcarbon amnesia: Toward a recognition of racial grief in renewable energy futures. *Science, Technology, & Human Values* 45(5): 934–962.
- Levenda A, Mahmoudi D and Sussman G (2015) The neoliberal politics of ‘smart’: Electricity consumption, household monitoring, and the enterprise form. *Canadian Journal of Communication* 40(4).
- Lewis J, Hernández D and Geronimus AT (2020) Energy efficiency as energy justice: Addressing racial inequities through investments in people and places. *Energy Efficiency* 13(3): 419–432.
- Lewis RL (2009) *Black Coal Miners in America: Race, Class, and Community Conflict, 1780-1980*. Lexington, KY: University of Kentucky Press.
- Lowe L (2015) *The Intimacies of Four Continents*. Durham, NC: Duke University Press.
- Luke N (2019) Docket No. 42516: Georgia Power Company’s 2019 Rate Case. Atlanta, GA. Available at: www.youtube.com/watch?v=aPquuso44kA&t=2712s (accessed 2 May 2020).
- Luke N and Heynen N (2020) Community solar as energy reparations: Abolishing petro-racial capitalism in New Orleans. *American Quarterly* 72(3): 603–625.
- Luke N and Huber MT. (2021) Introduction: Uneven Geographies of Electricity Capital. *Environment and Planning E*.
- Malm A (2016) *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*. London: Verso.
- Mann G (2010) Value after Lehman. *Historical Materialism* 18(4): 172–188.
- Marable M (1981) Power to the people? Energy and economic underdevelopment of black people in the ‘New South.’ *Black Books Bulletin* 7(3): 8–13.
- McCarthy J (2015) A socioecological fix to capitalist crisis and climate change? The possibilities and limits of renewable energy.” *Environment and Planning A: Economy and Space* 47(12): 2485–2502.
- McCreary T and Milligan R (2018) The limits of liberal recognition: Racial capitalism, settler colonialism, and environmental governance in Vancouver and Atlanta. *Antipode*, November.
- McDonald DA (2009) *Electric Capitalism: Recolonising Africa on the Power Grid*. London: EarthScan.
- McLaughlin GE and Robock SH (1949) *Why Industry Moves South: A Study of Factors Influencing the Recent Location of Manufacturing Plants in the South*. Washington, D.C.: Committee of the South, National Planning Association.
- Melamed J (2015) Racial capitalism. *Critical Ethnic Studies* 1(1): 76–85.
- Mitchell T (2013) *Carbon Democracy: Political Power in the Age of Oil*. New York: Verso.
- Mixon G (2005) *The Atlanta Riot: Race, Class, and Violence in a New South City*. Gainesville: University Press of Florida.
- Mullings B (2009) Neoliberalization, social reproduction and the limits to labour in Jamaica. *Singapore Journal of Tropical Geography* 30(2): 174–188.
- Munson R (1985) *The Power Makers: The Inside Story of America’s Biggest Business... and Its Struggle to Control Tomorrow’s Electricity*. Emmaus, PA: Rodale Press.

- Needham A (2014) *Power Lines: Phoenix and the Making of the Modern Southwest*. Princeton: Princeton University Press.
- Nixon R (2011) *Slow Violence and the Environmentalism of the Poor*. Cambridge: Harvard University Press.
- Nye DE (1992) *Electrifying America: Social Meanings of a New Technology, 1880–1940*. Cambridge: MIT Press.
- Partnership for Southern Equity (2019a) Fight the hike. Available at: <http://fightthehike.org/>
- Partnership for Southern Equity (2019b) Just energy. Available at: <https://psequity.org/just-energy/>
- Partnership for Southern Equity, Southern Alliance for Clean Energy, Georgia Conservation Voters, Sankofa UCC, Georgia WAND, Georgia Poor People's Campaign: A National Call for Moral Revival, Sistercare Alliances, Georgia Beyond Coal, and Sierra Club Georgia Chapter (2019) Rally to #FightTheHike. Facebook. 30 September 2019. Available at: www.facebook.com/events/380239829321214/?active_tab=discussion
- Pellow DN (2016) Toward a critical environmental justice studies: Black lives matter as an environmental justice challenge. *Du Bois Review* 13(2): 221–236.
- People's PSC (2020) We the plug tho. Twitter. Available at: <https://twitter.com/wetheplugtho>
- Petrova S and Simcock N (2019) Gender and energy: Domestic inequities reconsidered. *Social & Cultural Geography*, 1–19.
- Plumer B, Popovich N and Palmer B (2020) How decades of racist housing policy left neighborhoods sweltering. *The New York Times*, 24 August 2020. Available at: www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html (accessed 25 August 2020).
- Pulido L (2017) Geographies of race and ethnicity II: Environmental racism, racial capitalism and state-sanctioned violence. *Progress in Human Geography* 41(4): 524–533.
- Pulido L, Kohl E and Cotton N-M (2016) State regulation and environmental justice: The need for strategy reassessment. *Capitalism Nature Socialism* 27(2): 12–31.
- Reames TG (2016) Targeting energy justice: Exploring spatial, racial/ethnic and socioeconomic disparities in urban residential heating energy efficiency. *Energy Policy* 97(October): 549–558.
- Reed MB, Sullivan P, Matthew Tankersley W, et al. (2012) Historic streetcar systems in Georgia. Report, Georgia Department of Transportation, USA. Available at: www.dot.ga.gov/InvestSmart/Environment/CulturalResources/Pubs/GAStreetcar.pdf (accessed 8 April 2020).
- Relf G, Cooper E, Gold R, et al. (2020) 2020 utility energy efficiency scorecard. U2004. American Council for an Energy-Efficient Economy. Available at: www.aceee.org/sites/default/files/pdfs/u2004%20rev_0.pdf (accessed 17 April 2020).
- Robinson C (2000) *Black Marxism: The Making of the Black Radical Tradition*. Chapel Hill, NC: University of North Carolina Press.
- Rose v Raffensperger complaint (2020) District Court for the Northern District of Georgia Atlanta Division.
- Rutheiser C (1996) *Imagineering Atlanta*. London: Verso.
- Smith JM and Tidwell ASD (2016) The everyday lives of energy transitions: Contested sociotechnical imaginaries in the American West. *Social Studies of Science* 46(3): 327–350.
- Smith W (2019) Docket No. 42516: Georgia Power Company's 2019 Rate Case. Atlanta, GA. Available at: www.youtube.com/watch?v=aPquuso44kA&t=1452s (accessed 2 May 2020).
- Southern Alliance for Clean Energy (2019) Georgia power's proposed fee hike. Available at: <https://cleanenergy.org/wp-content/uploads/GPC-Fee-Hike-One-Pager-2019-09-25.pdf> (accessed 8 February 2021).
- Southern Company (2018) Imagine: 2017 Annual Report. Available at: https://s2.q4cdn.com/471677839/files/doc_financials/annual2017/2017-AR-Full-PDF-FINAL.pdf (accessed 10 June 2019).
- Southern Environmental Law Center (2019) Georgia Power Company's Applications for Solid Waste Handling Permits for Closure of Coal Ash Ponds at Plant Scherer (AP-1), Plant Wansley (AP-1), Plant Yates (AP-B) and AP-3 'Ash Management Area' and R6 Landfill, Plant McDonough (AP-1, AP-3, AP-4), and Plant Hammond (AP-3), 5 August 2019. Available at: <https://southernenvironment.sharefile.com/share/view/s2841595de554997a>

- Stanley A (2015) Wasted life: Labour, liveliness, and the production of value. *Antipode* 47(3): 792–811.
- Stokes S (2018) How Atlanta became the capital of income inequality. *WABE*, 31 October 31. Available at: www.wabe.org/atlanta-income-inequality/ (accessed 13 February 2021).
- Szeman I (2007) System failure: Oil, futurity, and the anticipation of disaster. *South Atlantic Quarterly* 106(4): 805–823.
- Tadiar NXM (2013) Life-times of disposability within global neoliberalism. *Social Text* 31(2): 19–48.
- Taft D and Heys S (2011) *Big Bets: Decisions & Leaders That Shaped Southern Company*. 1st ed. Atlanta, GA: Southern Company.
- The Atlanta Constitution (1906) Alderman key's views. 26 August 1906.
- The Atlanta Constitution (1946) Georgia power chiefs preview film on poultry. 19 January 1946.
- The Atlanta Georgian and News (1907a) Street railways under commission. 20 July 1907. Georgia Historic Newspapers. Available at: <https://gahistoricnewspapers.galileo.usg.edu/lccn/sn89053728/1907-07-20/ed-1/seq-1/> (accessed 13 December 2019).
- The Atlanta Georgian and News (1907b) The great and historic legislature of 1907. 19 August 1907, Georgia Historic Newspapers. Available at: <https://gahistoricnewspapers.galileo.usg.edu/lccn/sn89053728/1907-08-19/ed-1/seq-6> (accessed 13 December 2019).
- The Atlanta Journal-Constitution Staff Reports (2017) Timeline: Plant Vogtle through the years. Atlanta Journal-Constitution, 20 December 2017. Available at: www.ajc.com/news/local-govt-politics/plant-vogtle-timeline/wfQKABLCNtutld3RQPNwaL/ (accessed 18 December 2019).
- U.S. Census Bureau (1940) Georgia. Population Volume I. Available at: www2.census.gov/library/publications/decennial/1940/population-volume-1/33973538v1ch04.pdf (accessed 1 September 2020).
- U.S. Census Bureau (2019) Counties in south and west lead nation in population growth. The United States Census Bureau, 18 April 2019. Available at: www.census.gov/newsroom/press-releases/2019/estimates-county-metro.html (accessed 1 September 2020).
- U.S. Energy Information Administration (2009) Household energy use in Georgia: A closer look at residential energy consumption. Available at: www.eia.gov/consumption/residential/reports/2009/state_briefs/pdf/GA.pdf (accessed 12 May 2020).
- U.S. Energy Information Administration (2018) Table HC1.1 fuels used and end uses in U.S. homes by housing unit type, 2015. Residential Energy Consumption Survey (RECS), May 2018. Available at: www.eia.gov/consumption/residential/data/2015/hc/php/hc11.1.php (accessed 16 May 2020).
- Wald M (2019) Treat southern company like a government-insured bond. Seeking Alpha. 18 December 2019. Available at: <https://seekingalpha.com/article/4313082-treat-southern-company-like-government-insured-bond> (accessed 19 December 2019).
- Watts MJ (2012) A tale of two gulfs: Life, death, and dispossession along two oil frontiers. *American Quarterly* 64(3): 437–467.
- Weaver J (2019) Georgia power has 5,000 residential solar net metering contracts and it's first come, first served. Pv Magazine USA, 18 December 2019. Available at: <https://pv-magazine-usa.com/2019/12/18/georgia-power-has-5000-residential-solar-power-net-metering-contracts-first-come-first-serve/> (accessed 13 May 2020).
- Williams D (2019) Georgia Public Service Commission set to vote on Georgia power rate hike. *Gwinnett Daily Post*, 15 December 2019. Available at: www.gwinnettdailypost.com/curated/georgia-public-service-commission-set-to-vote-on-georgia-power/article_ce020432-1fb1-11ea-b69d-438013c38878.html (accessed 21 March 2020).
- Wilson BM (2000) *America's Johannesburg: Industrialization and Racial Transformation in Birmingham*. Lanham, MD: Rowman & Littlefield Publishers, Inc.
- Wright W (1957) *History of the Georgia Power Company, 1855-1956*. Atlanta, GA: Georgia Power Company.
- Wright WJ (2020) The morphology of marronage. *Annals of the American Association of Geographers* 110(4): 1134–1149.
- Yakubovich V, Granovetter M and McGuire P (2005) Electric charges: The social construction of rate systems. *Theory and Society* 34(5–6): 579–612.