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Dismantling Energy Apartheid in the United States

A Black History Month Special Report

by Robert D. Bullard / February 9th, 2011

Much attention in recent years has been devoted to green energy and reducing the human [carbon footprint](#) to counter the global warming and climate change threat. According to the [U.S. Energy Information Agency](#), the electric power sector is the largest source of energy-related carbon dioxide emissions by end-use sectors, accounting for 40.6 percent of all energy-related CO₂ emissions, followed by the transportation (33.1%), and the residential and commercial sector (26.3%).

The movement to [renewable energy](#) is the preferred strategy to [clean energy future](#) for our nation. Clean energy market is growing. More than [\\$243 billion](#) in new investments were made in clean energy in 2010. Yet, in 2009, renewable energy's market share reached just [8 percent](#) of the total U.S. energy consumption. It is worth noting that biomass energy generation made up [50 percent](#) of the renewable energy in 2009.

Biomass [incineration](#) is now being promoted as green and clean energy and a strategy to combat climate change. However, [burning](#) biomass to generate electricity is toxic, and is neither "green" nor "clean." Generally, biomass facilities emit more carbon dioxide per megawatt hour than burning fossil fuels, as well as NOx, particulates and other hazardous air and water pollutants that threaten human health and the environment. Biomass facilities include a range of operations from the burning of [municipal solid waste \(trash\)](#), [tires](#), construction/demolition wood waste, crop and animal wastes, energy crops, trees, gas from digestion of [sewage sludge](#) or animal wastes, and [landfill gas](#). Biomass can include any non-fossil fuel that is arguably "organic."

Unfortunately, "green" biomass (like energy crops) is often used as a foot in the door to bring in more toxic waste streams. The American Lung Association of New England ([ALANE](#)) outlined major environmental concerns in a [Biomass Position Statement](#):

Biomass emissions contain fine particulate matter, sulfur oxides, carbon monoxide, volatile organic compounds, and various irritant gases such as nitrogen oxides that can scar the lungs.

Like cigarettes, biomass emissions also contain chemicals that are known or suspected to be carcinogens, such as polycyclic aromatic hydrocarbons (PAHs) and dioxin.

The ALANE believes that as a nation “we cannot afford to trade our health to meet our energy needs.

Many “clean wood chips” burning biomass plants can easily turn to burning more contaminated fuels (which may be cheaper or even free), or get paid to take really dirty wastes like trash or tires. Public opposition to biomass facilities has driven siting that follows the “[path of least resistance](#),” which often translates to states where environmental regulations are [lax](#) and companies are given huge tax incentives to build these kinds of incinerators, and investors count on the local residents being uninformed and apathetic. Environmental justice siting concerns often get buried in the excitement and notion of “green energy.”

Zoning laws are often legal weapons deployed in facilitating energy apartheid. Local land-use and zoning policies are the root enabling cause of disproportionate environmental and health burdens borne by low income and people of color in the United States. Zoning Boards have the power to rezone land in favor of locally unwanted land uses or [LULUs](#), even over the objections of local residents. A 2003 National Academy of Public Administration (NAPA) [report](#), “*Addressing Community Concerns: How Environmental Justice Relates to Land Use Planning and Zoning*“, found that most planning and zoning boards members are men; more than nine out of 10 members are white; most members are 40-years-old or older; and boards contain mostly professionals and few, if any, nonprofessional or community representatives.

More often than not, a disproportionate share of low-income neighborhoods are deemed compatible with industrial use and thus get [shortchanged](#) in the neighborhood protection game. No amount of zoning has insulated the most vulnerable African American communities from the negative health impacts of industrial pollution. The struggle to dismantle energy apartheid—and gain equal access to clean and green energy—has become yet another [quest](#) for environmental justice and end the politics of pollution.

Anyone who knows anything about [Black History](#) in the U.S knows too well that African Americans have never been the first to get the “best of the best.” Clean energy and [green jobs](#) are no exception. The *de facto* energy apartheid policy of “talking green” and “acting dirty” hits African Americans and other people of color especially hard.

It should not be a surprise to anyone who has studied the environmental justice and noxious facility siting in the U.S. to learn that the [first](#) biomass energy facility in Texas, [Aspen Power Plant](#), is not slated for Houston’s affluent [River Oaks](#) community but is being built in a mostly black and poor community in [Lufkin](#). The plant is being built on Lufkin’s north side which has a long history as a “dumping ground” for polluting facilities. More than 77.4 percent of the

residents who live within a one-mile radius of the biomass plant are African Americans; and 58.3 percent of the residents found within a two-mile radius of the plant are African Americans. These findings are consistent with a 2005 Associated Press study showing that African Americans are 79 percent more likely than whites to live in neighborhoods that are suspected of posing the greatest health danger.

Lufkin's African American residents bear the greatest burden for the city hosting the biomass plant since blacks make up just 26.6 percent of the city's population. African Americans comprise 14.8 percent of Angelina County population and 12 percent of Texas population. In 2007, the city's Planning and Zoning Commission proposed to allow the facility to be located next door to the black community. City officials failed to notify its North Lufkin residents about this plan. However, the Lufkin City Council passed a zoning change in August 2007 to allow the plant to be built in the north side community.

Lufkin's Aspen Plant was financed with both public and private funds. It received \$750,000 from the state of Texas for roads, parking, engineering and administrative services. Akeida Capital Management (ACM), an environmental asset management firm focused on investing in renewable energy infrastructure, provided a \$14.1 million junior loan to Aspen Power to complete construction of the plant which began in late 2008. Angelina Fuels, Aspen Power's sister company, will provide the plant with approximately 1,500 tons of biomass per day from timber harvesting, sawmill and municipal cleanup activities in and around Lufkin. The Aspen Power facility is expected to create approximately 50 new jobs. Public opposition and legal battles to the plant forced Aspen Power to spend an additional \$10 million on air pollution controls.

Georgia is another state where biomass incineration has been welcomed. According to the Energy Justice Network, Georgia has 12 operating biomass facilities, 4 under construction, and 5 proposed facilities. The Census places the 2009 Georgia African American population at 30.2 percent. Biomass plants tend to be located in Georgia counties where African Americans are overrepresented in the population. For example, 7 of the 12 (58.3%) operating biomass plants are located in counties whose black population exceeds the percent black in the state—ranging from 40.0 percent to 58.5 percent; 3 of the 4 (75.0%) wood biomass incinerators that are under construction are in majority black counties ranging from 53.7 percent black to 65.3 percent black; 3 of the 5 proposed plants (60%) are located in counties where the percent black exceeds the state average; a majority of the proposed and under construction biomass plants—5 of the 9 or 55.6 percent—are located in counties where the black population is 50 percent or higher; and 13 of 21 (61.9%) biomass plants that are either operating, under construction, or proposed in Georgia are located in counties whose percent black population exceeds the state average, ranging from 33.5 percent to 65.3 percent.

Residents in [Valdosta, Georgia](#) are fighting to block a 40 megawatt [biomass incinerator](#) slated for construction on a 22-acre site in their community. The community is already overburdened with polluting industries and heavy truck traffic. The Valdosta Wiregrass [biomass plant](#) is slated to be built next to a sewer treatment plant and within 2 miles of an incinerator, two predominantly black elementary and one predominantly white elementary schools, and a Head Start program serves over 165 children ages 3-5. Eight out of every ten residents (82.0%) who live within a mile of the proposed biomass plant are black; more than three-fourths (79.0 %) of the residents who live within a two-mile radius of the proposed plant are African American.

The [Valdosta-Lowndes NAACP](#) branch and their supporters [claim](#) the plant siting is environmental racism. They raised their claim with the newly appointed EPA Region 4 administrator, [Gwen Keyes Fleming](#)—the first African American to hold the post—at a [summit](#) held in Atlanta in November 2010. The NAACP along with more than 40 other groups representing “poisoned communities” in EPA Region 4 delivered a [Call to Action](#) to EPA demanding an end to environmental injustice perpetrated on people of color and low-income communities.

The Georgia Environmental Protection Division ([EPD](#)) held public hearings in May 2010 where residents asked it to consider “cumulative health impacts” in the permitting facilities rather than its traditional “smokestack by smokestack” evaluation. The biomass incinerator is being marketed as a “clean energy” project. However, many Valdosta and Lowndes County residents disagree, views held by a growing number of [anti-biomass](#) and incineration and forest protection campaigns. The facility is far from clean. It will burn more than 640,000 tons of wood every year and emit 87-89 tons per year of tiny particulate matter smaller than 10 microns in size ([PM10](#)), dangerous particulate pollution because it lodges permanently in people’s lungs. More than 50 diesel trucks per day will travel to and from the incinerator 24-hours a day, 365 days a year.

Residents in [Lithonia, Georgia](#), a suburban city located just outside Atlanta, successfully [blocked](#) a 20-acre biomass facility from locating in their community. Lithonia is 80 percent African American. The plant is a joint venture between a minority-owned firm called Green Energy Partners, Inc. and [AECOM](#), the largest design-build firm in the world with clients in more than 100 countries.

The \$50 million facility was first killed by the Lithonia City Council. It was later resurrected by an alternate site just outside the city limits—falling under the jurisdiction of the [DeKalb County Board of Commissioners](#), who approved the plant in a [6-1 vote](#) in July 2010. Construction on the plant is scheduled this month. The DeKalb County plant will operate around the clock and is projected to [burn](#) more than 100,000 tons of yard waste – wood chips from trees and leaves – to generate 10 megawatts of electricity to power 7,000 homes. It plans to sell the electricity to the Georgia Power Co.

The biomass plant is projected to generate about \$220,000 a year for DeKalb in revenues for DeKalb County government for the next 20 years. It is promoted as an economic development project since it will create 100 jobs during construction and 25 permanent positions, and add \$50 million to the tax digest. However, Lithonia residents question whether 25 permanent jobs—that may or may not go to nearby residents—will be worth the health, environmental, and economic risks (impact on property values). They fear the 24-hour plant operation will bring harmful emissions, noise and unwanted truck traffic and diesel emissions to their community.

Residents who live near power plants must not only contend with potential exposure from the facilities but also face environmental health threats from truck traffic and vehicle emissions, especially diesel emissions from trucks. Diesel traffic emissions also impact indoor exposures. Long-term exposure to high levels of diesel exhausts (generally at the level of occupational exposure) increase risk of developing lung cancer. Diesel engine emissions contribute to serious public health problems, including premature mortality, aggravation of existing asthma, acute respiratory symptoms, chronic bronchitis, and decreased lung function. Diesel engine emissions have also been linked to increased incidences of various cancers in more than 30 health studies. Diesel particulate matter alone contributes to 125,000 cancers in the United States each year.

The average African American household emits 20 percent fewer greenhouse gases than its white counterparts. Yet, African Americans are being asked, or rather forced, to bear a disproportionate burden in hosting “dirty” energy plants. More than 68 percent of African Americans live within 30 miles of a coal-fired power plant, the distance within which the maximum effects of the smokestack plume are expected to occur. In comparison, 56 percent of whites and 39 percent of Latinos live in such proximity to a coal-fired power plant. Over 35 million American children live within 30 miles of a power plant, of which an estimated 2 million are asthmatic. Coal-burning power plants are the major source of mercury pollution, a neurotoxin especially harmful to children and developing fetuses. About 8 percent of U.S. women of childbearing age are at risk from mercury pollution.

While Americans talk about a “green energy future,” the continued siting of “dirty” coal-fired power plants raises some major environmental justice concerns. Nowhere is this disturbing trend more apparent than in Georgia. In 2009, African Americans made up 30.2 percent of Georgia’s population. However, two of the three (75%) proposed coal-fired power plants seeking permits in Georgia are located in majority black counties. All three of the proposed coal-fired power plants are located in Georgia cities ranging from 49.6 percent black to 60.4 percent black. The proposed Georgia coal-fired plants include: Greenleaf Coal Power Plant in Blakely (60.4% black) in Early County (50.0 % black); Fitzgerald Power Plant near Fitzgerald (49.6% black) in Ben Hill County (32.6 % black); and the Washington County Plant near Sandersville (59.3% black) in Washington County (52.7% black). Clearly, Black Georgians shoulder a disproportionate burden of energy apartheid that’s practiced in the state.

Recent proposals to jump-start the nuclear power industry have [sparked debate](#) and environmental justice concerns among African Americans. Georgia’s mostly African American and poor communities are also being targeted for risky nuclear power plants. For example, the first nuclear power plants to be built in decades are being proposed in Georgia with an [\\$8.3 billion](#) federal loan guarantee. The loan guarantee will help the Atlanta-based Southern Company build two more nuclear reactors in the mostly African American Shell Bluff community in [Burke County, GA](#). The county is 51.1 percent black. The two new reactors would each produce 1,000 megawatts, and would work with two existing reactors at a site near [Waynesboro, GA](#) (62.5% black).

Much more research is needed on energy apartheid nationally. More policy analysis is needed to clarify who gets what, when, and why, and where “green” and “clean” energy is headed and where the same old “dirty” energy plants are being proposed and sited across the country. Talking about “going green” is very different from actually going green. Talk is cheap. The time is long overdue to put an end to “energy apartheid” in the United States—where “clean energy” is reserved for the more affluent white Americans and “dirty energy” targeted for poor and people of color.

Our [Climate Justice Movement](#) demands that clean, green, and renewable energy be made available to all Americans without regard to race, color, national origin, or income. It is unlikely that we as a nation can achieve sustainability and a green energy future without addressing these equity issues. Too few African American elected officials and leaders from government, business, civil rights, faith-based, academia, and think tank organizations are speaking out against energy apartheid. We need a national summit that brings together diverse sectors and leaders from the African American community to develop a plan of action. This is the right thing to do. And this is the right time to do it. We must speak and do for ourselves and protect our communities if we are to be part of and reap the [benefits](#), and not get left behind or on the sideline of a clean energy future.

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