

Electricity is an essential service. But most U.S. transmission lines were constructed in the 1950s and 1960s with a 50-year life expectancy and have reached or surpassed their intended lifespan.[1] In the last decade, regionally planned transmission investment has decreased by 50% and almost no new interregional lines have been planned.[2] Failure to expand our grid and connect to diversified generation resources is increasing electricity personal bills; inhibiting economic development and job creation; making the nation more vulnerable to grid outages and national security threats; and undermining America's global competitiveness.

But the impacts of grid failure, climate change, and thermal pollution do not fall evenly across communities. As the Massachusetts AG's office described in comments to FERC, "the nation's energy system has been planned, sited, and operated in ways that disproportionately burden low-income communities and communities of color and reinforce structural racism and oppression." [3] WE ACT for Environmental Justice, in its own FERC comments, wrote that **"grid unreliability is an urgent environmental injustice issue."** [4] Responsible, well-planned transmission can help relieve inequities by delivery clean and reliable energy to all communities. [5]

Transmission Provides Increased Resilience

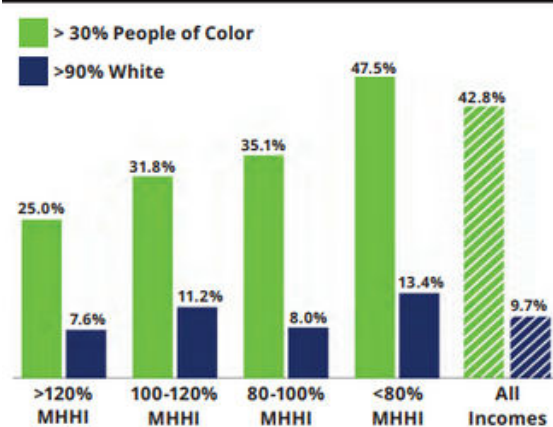
During Winter Storm Uri in 2021, low-income Texans bore some of the heaviest weight of the power outages. [6] Even though both Midwest and Texas suffered emergency conditions, [7] there were greater casualties and losses in Texas due to a lack of power.

- In Texas, more than 4.5 million people lost power, some for up to 4 days. Over 200 people died, the majority due to outage-related causes. [8] The Federal Reserve Bank of Dallas estimated the outages caused \$80 to \$130 in direct and indirect economic losses. [9] Meanwhile, the Midwest states suffered only a "handful of short duration [power outage] events." [10]
- **The difference:** MISO, the grid operator for the Midwest, is well connected to its neighbors by transmission. On just one day of the storm, MISO imported 13,000 MW power and exported 7,000 MW to keep the lights on. By contrast, Texas was able to import just 800 MW over the course of the week. [11]

Transmission Can Reduce Greenhouse Gas Emissions and Improve Air Quality

- Many of the most polluting power plants are located near low-income areas and communities of color. Compared to the overall population, communities of color are exposed to nearly 1.3 times more particulate matter pollution, which is linked to numerous health issues. [12] The racial disparities persist across income levels. A Pennsylvania study found power plants were more likely to be located near communities of color at all incomes. [13] (Figure 1)
- Transmission allows more clean energy to be connected to the grid and reduces reliance on greenhouse gas-emitting resources.

PA Census Tracts Within Three Miles of Existing Power Plants by Race and Median Household Income (MHHI)



Median household income relative to statewide median of \$53,600
Figure 1. Source: Food and Water Watch, "Pernicious Placement of Pennsylvania Power Plants: Natural Gas-Fired Power Plant Boom Reinforces Environmental Injustice," 2018.

Transmission Can Reduce Power Costs

- Low-income communities face disproportionate energy affordability burdens. Increased transmission can lead to reduced congestion, and as a result, lower system-wide costs to provide electricity.[14]
- One study found transmission expansion and the resulting increase in wind and solar generation can decrease the average consumer electric bill by more than one-third, from more than 9 cents/kWh today to 6 cents/kWh by 2050. This would save a typical household more than \$300 per year based on current electricity consumption levels.[15]

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"When energy system failures occur, already vulnerable communities suffer unequal harms ... [T]he transmission planning process can help resolve these inequities." - Greater Grand Rapids NAACP

Comments to FERC Docket No. RM21-17, E-library #20220817-5284, p. 8-9 [internal citations omitted]

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Case Studies

- Due to the construction of the Trans Bay Cable, residents of the Hunters Point community in San Francisco can breathe cleaner air. The new, high voltage direct current (HVDC) transmission line delivers reliable power to San Francisco and led to the 2010 closure of the Hunters Point Power Plant, a generator that has long contributed to a disproportionate number of asthma and cancer cases in the city.[16]
- In New York City, neighborhoods with poor air quality will see relief in coming decade with the commissioning of two new HVDC transmission lines, which will deliver clean, renewable solar, wind, and hydroelectric power from upstate New York and Canada through lines undergrounded in the South Bronx – a predominantly low-income, non-white neighborhood already experiencing cumulative impacts of multiple sources of pollution, such as gas plants and highways.[17] Areas of South Bronx as well as Northern Manhattan experience one of the highest rates of death and disease from asthma in the country.[18]



References

1. American Society of Civil Engineers, "Policy Statement 484 - Electricity Generation and Transmission Infrastructure," 2022.
2. Caspary, Goggin, Gramlich, and Schneider, "Disconnected: The Need for a New Generator Interconnection Policy," at 21, 2021; Pfeifenberger et al., "Cost Savings Offered by Competition in Electric Transmission," at 1, 2019.
3. Massachusetts Office of the Attorney General comments to FERC Docket No. RM21-17, E-library #20220817-5210, at 53-54, 2022.
4. WE ACT for Environmental Justice comments to FERC Docket No. RM21-17, E-library #20220818-5001, 2022.
5. ACEG's primary objective is to advocate for well-planned transmission. This is one of many steps needed to address historic inequities.
6. The Texas Tribune, "Already hit hard by pandemic, Black and Hispanic communities suffer the blows of an unforgiving winter storm," 2021.
7. FERC - NERC - Regional Entity Staff Report, "The February 2021 Cold Weather Outages in Texas and the South Central United States," at 13, 2021.
8. *Ibid.*, at 9.
9. Federal Reserve of Dallas, "Cost of Texas' 2021 Deep Freeze Justifies Weatherization."
10. MISO, "The February Arctic Event," 2021.
11. FERC-NERC Report at 25, 27, 182, 229; Goggin, Gramlich, Caspary, and Schneider *Fleetwide Failures: How Interregional Transmission Tends to Keep the Lights on When There Is a Loss of Generation* at 4, 2021.
12. Clack et. al., "Consumer, Employment and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.," at 17, 2020; Ihab Mikati, et al., "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," 2018.
13. Food and Water Watch, "Pernicious Placement of Pennsylvania Power Plants: Natural Gas-Fired Power Plant Boom Reinforces Environmental Injustice," 2018.
14. Dev Millstein, et al., "Empirical Estimates of Transmission Value using Locational Marginal Prices," at 3, 2022.
15. Clack et. al. Report at 9.
16. A city health department study in 2000 showed that residents of Hunters Point and the adjoining Bayview neighborhood were more than twice as likely to be hospitalized with asthma as city residents overall.
17. *Clean Path NY*
18. Columbia Center for Children's Health, "Asthma."