

The 2023 Engineering Ideas Institute – Tackling the Challenges Facing Our World Through Scenario Planning & Collaboration

Miami Devastated by Hurricanes

The 2020-2030 decade was marked by nearly constant and overlapping natural disasters across the United States. The prolific run of devastating wildfires, flooding, and hurricanes elevated the Cybersecurity & Infrastructure Security Agency (CISA) to a household name, and resiliency to common dinner conversation. In 2025, after a major hurricane hit Miami and shut down the Port of Miami for the better part of a year and devastated the economy, CISA and cooperating agencies funded the multi-billion-dollar Florida Coastal Barrier System Project. Polls indicated that public support for coastal barriers and other resiliency-related infrastructure projects was high. Unprecedented regional bond programs were approved to support joint state and federal projects to erect barriers.

In 2030, a catastrophic ice shelf collapse raised sea level six inches in one year. In 2031, when the Florida Coastal Barrier System Project was well into construction, with significant portions completed, another devastating hurricane hit, destroying much of the barrier system and rendering large portions of South Florida uninhabitable. 15 million people were impacted. Most housing was rendered uninhabitable and over three million people were permanently displaced. The loss of life was estimated to exceed 50,000 people. After the second hurricane, the State of Florida voted to shift funding away from re-building all areas and, instead, relocate close to three million refugees from the hardest hit areas.

On the national level, the resulting society-wide awakening to the escalating impacts of climate change and extreme weather events sparked a new, shared transformation from apathy and short-term thinking to a commitment to long-term planning and funding for resilience and reduction of carbon emissions.

An example of this transformation was the institution of “Blackout Fridays.” Beginning in 2033, cell phone notifications appeared every Thursday afternoon throughout the United States as the weekly reminder that activities involving all discretionary energy use are to be suspended one day a week. This nationwide blackout was just one of a set of dramatic changes agreed to by society in the wake of the two Miami hurricanes.

A flurry of activity takes place in communities across the country each Thursday evening as people rush to finish work and school, run errands, and communicate with their friends and families before the power and internet are shut off at midnight. In many communities, Blackout Friday’s have centered around volunteer events to support the relocation of the three million South Florida refugees. Other communities focus on constructing micro renewable energy systems, proliferating community gardens, retrofitting homes to house multiple families, and volunteer-led masterclasses. These community projects are all undertaken with the ambition to reduce energy consumption behaviors and adapt to the new extreme climate norm.

Some community members have better access to getting their needs met during Blackout Friday than others and are exposed to extreme heat and cold events. National protests rise against the disparate impact on socio-economically disadvantaged populations. Battles ensue between neighbors reporting each other for unauthorized Friday power usage. Some communities are brought together by Blackout Fridays, but others are divided.

