

One Year Later: Superstorm Sandy and a Call to Action

Climate change increases the frequency of extreme weather events and worsens their impact on our communities and economy. In the year since Superstorm Sandy, a continued lack of investment and the crumbling of our basic systems—the ones we rely on to get us from place to place; to bring us heat, electricity and clean water; and to allow us to communicate with each other—highlights the need for immediate action.

Modernizing and updating our basic systems—networks that millions depend on every day—to make them resilient to the impacts of climate change will make them more efficient and reduce carbon pollution while protecting our communities and creating family-sustaining jobs for American workers in every sector of our economy.

The following five infrastructure sectors have the greatest investment shortfalls, the greatest potential job creation and require our immediate investment:

1. Strengthen electric grid reliability and expand capacity

A modern electrical grid delivers power efficiently and reliably to customers. Superstorm Sandy is one dramatic example of why we must invest in new transmission technologies to better carry power from clean energy resources and an intelligent distribution system resilient to extreme weather. Further, ensuring an adequate workforce will maintain safe utility operations. Approximately 13,000 jobs are created for every billion dollars of investment in the electrical grid.ⁱ By 2020, the American Society of Civil Engineers (ASCE) projects a \$107 billion investment gap in electricity infrastructure.ⁱⁱ



Photo by Paul Allison.

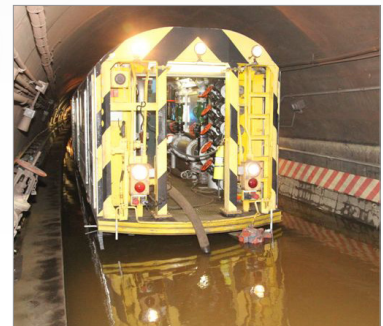
2. Modernize water systems and increase storm water capacity and coastal storm surge responsiveness

Our water infrastructure is in urgent need of repair. Some of the system is more than a century old, and the U.S. experiences an estimated 800 water main breaks every day.ⁱⁱⁱ In the year since Superstorm Sandy, increased instances of flash flooding and pervasive droughts have tested the abilities of our wastewater and drinking water systems. Dramatic flooding in Colorado and Michigan this year caused hundreds of millions of dollars in damage.

The funding gap to fix these systems is \$54.8 billion per year;^{iv} while every \$1 billion invested in water infrastructure can create more than 20,000 new jobs.^v

3. Identify and reconstruct vulnerable sections of transportation systems

Both public transportation systems and our roads and bridges require significant investment—approximately \$71 billion per year.^{vi} According to the ASCE, 42 percent of major urban highways are congested, costing the economy around \$101 billion annually,^{vii} wasting fuel and emitting carbon pollution. The integrity of our bridges and reliability of public transportation, particularly during natural disasters, remain an utmost safety concern.



New York City Transit employees pumping water out of subway tunnels after Superstorm Sandy. Photo by MTA/Leonard Wiggins.

To strengthen the transit system, New Jersey partnered with the Department of Energy to create the NJ TransitGrid, adding micro-grid capabilities to ensure reliable operation during storms and outages.^{viii} This type of investment keeps public transportation systems effective in a changing climate, and they should be encouraged.

Investing in transportation infrastructure comprehensively can create, on average, almost 32,000 jobs per \$1 billion dollars.^{ix}

4. Strengthen communications technology to withstand greater weather damage

Communications and information technologies play a critical role during emergency events, and they provide the intelligent backbone to many new infrastructure services, such as smart grid technologies. Managing and maintaining the flow of information requires expanded investments in communications services and capabilities.

Communications infrastructure should be hardened to protect against weather damage. During Superstorm Sandy, 25 percent of the cell towers across 10 states were knocked out.^x Improving these systems can create family-sustaining jobs, ensure public safety, and help guard against the impacts of climate change. Investing in communications infrastructure can create approximately 23,900 jobs per billion dollars spent.^{xi}

5. Renovate anchor community institutions like hospitals and schools to serve as needed crisis centers

Anchor institutions, such as schools and hospitals, are important to the everyday functioning of communities across America. In times of crisis, they become absolutely vital, providing needed services and resources to victims. Renovating and upgrading these centers should be a priority to ensure everyone has access to safe, modern and resilient places to turn to in times of need.

Commercial buildings represent 36 percent of U.S. energy use, and contribute 18 percent of its carbon dioxide emissions.^{xii} On average, 30 percent of energy used in buildings is wasted.^{xiii} Improving efficiency in our nation's building stock would reduce greenhouse gas emissions and go a long way to mitigating our effects on the climate. Further, some efficiency measures may allow a building to maintain power even if the electrical grid goes down—as was the case during Superstorm Sandy—preserving vital services to affected communities. Commercial building efficiency retrofits can create more than 17,000 jobs per \$1 billion in investment.^{xiv}

IN CONCLUSION

The one-year anniversary of Superstorm Sandy serves as a call to action to address the vulnerabilities exposed by extreme weather. As the face of climate change becomes more apparent, it is critical for the U.S. to invest in its infrastructure. Efficient and reliable service in the above sectors lowers our carbon emissions, lessens the impact of climate change on our systems, and maintains a competitive American economy.

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The BlueGreen Alliance is a national, strategic partnership between labor unions and environmental organizations dedicated to expanding the number and quality of jobs in the green economy.

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