Resilience as Climate Change Intensifies Extremes

Hurricane Maria Shows Clear and Urgent Need for Resilience as Climate Change Intensifies Extremes

Power Outage Alone May Have Caused More Than 1,500 Deaths in Puerto Rico

When Harvard Medical School published its report estimating the death count from Hurricane Maria, there was an uproar: researchers put Puerto Rico’s death toll at more than 4,600—72 times the then-official count of 64. If the Harvard estimate is accurate, the storm was the costliest in lives lost in over a century for the United States.

The study confirmed what those on the ground knew: the hurricane’s terrible devastation—causing $90 billion in damage—was followed by an inexcusably slow response, resulting in more deaths long after the storm had passed. Indeed, the report estimated that over a third of the deaths (more than 1,500) occurred during the recovery, as a result of the island’s lack of power, when life-saving appliances and air conditioning units could not operate.

Hurricane Maria conjures memories of Katrina in New Orleans. It confirms that when disasters strike in areas affected by chronic disinvestment, the impacts can be apocalyptic. This is all the more troubling as climate change is already increasing the severity and frequency of extreme weather.

A key part of the solution, EESI has long argued, is greater resilience. Emphasizing preparatory measures and preemptive investment in infrastructure can save lives, both during disasters and after them. With your generous support, EESI is holding a briefing series on Building Resilient and Secure Infrastructure. We showcase best practices from states and communities across the country to inform policymakers and stakeholders about what’s working (and what’s not). EESI’s panels, factsheets, and coalition work all help us move toward the goal of long-term energy reliability and resilience. This will help ensure economic development, public health and safety, national security, fiscal responsibility, enhanced equity, jobs, and quality of life.

In Puerto Rico, we are seeing glimpses of the future of energy in its hospitals, community centers, and schools. Microgrids, smart grids, and solar-plus-storage systems can provide resilient power to key buildings and even to entire municipalities. Besides reducing the cost of electricity to users, these technologies and systems reduce dependence on the electric grid. This increased self-reliance is especially valuable when the grid fails—such as during hurricanes, wildfires, or other natural disasters! With this in mind, Puerto Rico’s Energy Commission has recommended investing in community solar projects. (EESI helps utilities make it easier for their customers to invest in such projects through our On-Bill Financing Project, www.eesi.org/obf/solar, which removes the need for upfront financing by households.)

Resilient Power Puerto Rico uses a model developed during the Superstorm Sandy recovery effort and implemented by Power Rockaways Resilience (PPR), Rockaways, New York, was one of the areas hardest hit by Superstorm Sandy—it was left without power and suffered from looting. Getting the grid back online was going to take time, so PPR set up wind and solar microgrids that could provide electricity right away. EESI showcased one such post-Sandy project in our briefing, Solar Power and Resilient Design for Schools and Shelters. These new energy sources and microgrids can prevent extended losses of power after storms.

While innovative energy systems put vulnerable communities in a better position, sometimes broader issues need to be addressed. For instance, Puerto Rico’s reliance on a heavily indebted electric utility made it even more vulnerable to Hurricane Maria. It is also delaying Puerto Rico’s transition to renewable, resilient energy systems. Nevertheless, many Puerto Ricans are striding towards a more resilient future using microgrids and renewable energy. Their success could point the way for other hurricane-prone communities in the Caribbean and along the Gulf and East Coasts, which are bracing for more extreme weather as climate change intensifies. With your continued support, EESI will keep showcasing sensible and resilient solutions.
Federal Energy Efficiency Programs Help Reduce Housing Costs

Did you know that rural households—who tend to have lower incomes—are hit with especially high energy burdens? This is no surprise to us at EESI, as we’ve focused on helping rural households tackle their high energy bills for several years through our On-bill Financing Project (www.eesi.org/obf).

EESI partnered with Energy Efficiency for All (EEFA) to organize a briefing on Federal Programs for Energy and Housing. A hard-hitting expert panel discussed how low-income households benefit from energy efficiency retrofits that can substantially lower their utility bills. Several federal programs play a critical role in making energy more affordable for low-income households.

The panel highlighted a new American Council for an Energy-Efficient Economy (ACEEE) study, for which EESI acted as an expert reviewer, confirming that rural households have a disproportionately high “energy burden” (percent of income spent on energy). Low-income rural households are especially hard-hit: their median energy burden is 9 percent, more than twice as much as the median for all households (3.3 percent).

Congress & FEMA Shift toward Resilience in National Disaster Policy

It’s not making the headlines, but the Federal Emergency Management Agency (FEMA) and both chambers of Congress are taking action to ensure greater investment in mitigation strategies before and after disasters to make buildings, infrastructure, and communities more resilient to the impacts of extreme weather and other catastrophic events. Thanks to you, EESI has been involved in showcasing resilient solutions for policymakers and working with broad coalitions to find win-win ways to move forward.

That’s important because with more upfront investment in resilience, the federal government can save enormous sums of money now spent on disaster recovery, while saving lives and private property.

Several bills currently moving through Congress have resilience provisions. Parts of the FAA reauthorization bill would increase investments for pre-disaster mitigation and help communities adopt and enforce the latest model building codes after disasters. The PREPARE Act would establish government-wide goals and implement priorities for extreme weather resilience, as well as support regional, state, and local governments in developing resilience strategies. EESI analyzed both bills and backs both sets of provisions.

Meanwhile, FEMA has released a plan that emphasizes pre-disaster mitigation and shared responsibility for disaster preparedness. It calls for a “federally supported, state managed, and locally executed” model. There is certainly much to improve: in 2017, the United States experienced 16 natural disasters that cost thousands of lives and more than $309 billion. Back-to-back hurricanes in Texas, Florida, and Puerto Rico (see front-page article), as well as wildfires and mudslides on the West Coast, together presented the biggest challenge for FEMA since Katrina.

Thanks to your support, EESI has made strides in growing awareness of climate resilience solutions (though there is so much more to do). We’ve reached out directly to federal agencies as well as Congressional offices and committees to share our recommendations. EESI convened a diverse group of stakeholders to submit a letter to Senate leadership in support of the pre-disaster mitigation provisions of the Disaster Recovery Reform Act.
Map Shows Utilities Offering Energy Upgrades with No Upfront Costs

EESI recently published an interactive map showing the 110+ utilities in the United States—rural electric cooperatives, public utilities, or investor-owned utilities—that operate an on-bill financing program. On-bill financing (OBF) allows ratepayers to borrow money for energy upgrades to their homes and repay the loans as part of their utility bills. The utilities (or partner organizations) provide the loans, and the upgrades can include energy efficiency retrofits or renewable energy installations.

EESI’s On-Bill Financing Project is an ongoing EESI initiative aimed at spreading the OBF model to help families reduce energy use, cut energy bills, and improve home comfort—all with no upfront costs.

The map, which will be continually updated as OBF spreads, features several videos and can be found on our website at www.eesi.org/obf/map. Learn more about the On-Bill Financing Project at www.eesi.org/obf.

Meet EESI’s Summer Interns!

Throughout the year, EESI hosts interns to train the next generation of environmental leaders as part of the Richard L. Ottinger Internship Program, named after our co-founder and Board Chair Emeritus, former Member of Congress (NY) Dick Ottinger. This summer, we were delighted to have Tim Manning (from Acton, MA, and a senior at the New College of Florida), Maria Pfister (from Minneapolis and a recent University of Wisconsin-Madison graduate), Lauren Taylor (from Lincoln, NE, now studying at the University of Nebraska-Lincoln), and Alexandra “Alex” Zablocki (from McLean, VA, now studying economics at Kenyon College in Gambier, OH).

Q: WHAT SUSTAINABLE TECHNOLOGY/PRACTICE ARE YOU MOST EXCITED ABOUT?
Alex: Living shorelines.
Lauren: Wind energy and energy storage technologies!
Maria: Carbon pricing (specifically, a carbon tax)!
Tim: I’m always inspired by the work done by environmental justice movements like the Dakota Access Pipeline protests that are refocusing the environmental movement on fighting social inequality and environmental racism.

Q: WHAT BOOK ARE YOU READING RIGHT NOW?
Alex: Collapse: How Societies Choose to Fail or Succeed by Jared Diamond.
Lauren: I just finished Homegoing by Yaa Gyasi! I would recommend it 10/10.
Maria: How Not to Be Wrong: The Power of Mathematical Thinking by Jordan Ellenberg (it’s great, I would highly recommend it!)
Tim: All About Love by Bell Hooks, and The Invention of Nature by Andrea Wulf.

Learn more about our internship program (and apply!) at www.eesi.org/internships.

Q: WHAT IS YOUR FAVORITE PART OF WORKING AT EESI?
Alex: Everyone is always happy to answer your questions and help you become more knowledgeable about environmental policy.
Lauren: I love being surrounded with coworkers who are so knowledgeable and passionate about finding solutions to climate issues.
Maria: I love the work we do at EESI, and I get to work with incredible colleagues!
Tim: It’s great to work around people who are hard-working, passionate, and determined to have a positive impact.
We moved in March!
Please update your records.

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EESI UPDATE

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