

Hurricane Fiona Recovery: Context and Challenges

November 14, 2022

Fiona's Landfall Amid Multiple Recovery Efforts

Hurricane Fiona made landfall on the southwestern coast of Puerto Rico on September 18, 2022, as a Category 1 hurricane, unleashing 85mph winds and significant flooding. On September 21, President Joseph R. Biden declared a major disaster under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act, P.L. 93-288, as amended), authorizing federal assistance for the Commonwealth, local *municipio* governments, nonprofits, and individuals through the Federal Emergency Management Agency (FEMA).

Prior to Hurricane Fiona, the government of Puerto Rico managed ongoing complicated recoveries from three recent major disasters:

- [Hurricanes Irma and María in 2017](#);
- a [series of earthquakes in 2019-2020](#); and
- the [COVID-19 pandemic](#).

These concurrent efforts complicate response and recovery. [Policy disagreements](#) among government officials; a persistent [fiscal crisis](#); and [workforce shortfalls](#) have [delayed](#) ongoing recovery efforts.

Recovery Delays and Consequences for Fiona Response

The 2017 hurricanes caused catastrophic damage and an official estimate of [2,975 fatalities](#) across Puerto Rico. The government of Puerto Rico [estimated that recovery could cost over \\$130 billion](#), with [\\$41 billion](#) coming from FEMA, making it the most costly individual Stafford Act declaration to date.

FEMA and Puerto Rico's Central Office of Recovery, Reconstruction, and Resiliency (COR3, the administrator of Puerto Rico's federal recovery funds) have [demonstrated significant progress](#) delivering hurricane assistance. Much of the on-the-ground work of reconstruction, however, is yet to conclude, and in many cases, [yet to begin](#).

Congressional Research Service

<https://crsreports.congress.gov>

IN12044

Of ongoing interest to Congress are projects eligible for FEMA Public Assistance (PA), which provides financial assistance for eligible costs of emergency response (“emergency work”) and the reconstruction of public and nonprofit hurricane-damaged facilities (“permanent work”). Approximately **\$28.5 billion has been obligated** through PA—the most obligated for PA for a single declaration to date according to **publicly available FEMA data**. As of mid-October 2022, COR3 has disbursed approximately **\$790 million** of these funds for permanent reconstruction. The Government Accountability Office (GAO), COR3, and FEMA identified a number of factors delaying recovery, including:

- the **use of modified procedures** to complete PA projects;
- **heightened financial controls**;
- **rising costs and supply chain disruptions**;
- **lack of initial capital needed to launch projects** prior to receiving reimbursement through PA;
- **capacity shortfalls** in **government** and private industry; and
- **grant program complexity**.

Remaining work includes securing FEMA’s **approval** for individual projects for four territory agencies (including the Puerto Rico Electric Power Authority (PREPA)) with damaged worksites across the territory. Stakeholders anticipate some of these projects will not be complete until **2031**.

These ongoing recovery efforts may hinder Hurricane Fiona recovery in several ways. Federal, territory, and *municipio* governments are managing four major disaster recoveries simultaneously—a significant task that may further strain existing capacity. Additionally, Hurricane Fiona recovery projects may require funding for up-front costs and/or local cost shares that may prove difficult to secure given concurrent recovery efforts.

Federal Emergency Response Issues and Improvements

FEMA reported “**significant challenges**” with emergency response following Hurricane María in Puerto Rico. The Department of Homeland Security (DHS) Office of Inspector General (OIG) **found that** FEMA mismanaged the distribution of supplies such as food and water (among other issues). **RAND** foresaw problems with moving materials around the territory during future disaster responses.

Since then, FEMA, the government of Puerto Rico, *municipios*, and nonprofits endeavored to make the island more prepared for future incidents. FEMA increased the number of its commodity storage warehouses in Puerto Rico from one to **four**. In September 2022, FEMA representative Anne Bink **testified** that the agency had “nine times the water, ten times the meals, and three times the number of generators on island” compared to the eve of Hurricane Maria.

Nonetheless, the aftermath of Hurricane Fiona highlighted difficulties in disaster response, for example:

- Hurricane Fiona particularly affected difficult-to-reach, mountainous terrain in the territory’s center. Emergency managers **reported that at least six** of Puerto Rico’s 78 *municipios* were cut off due to damages to roads and bridges.
- Local journalists found that **problems locating** an estimated 40,000 individuals reliant on electrically-powered medical machinery put them at increased risk.
- News media reported that the Puerto Rico Department of Corrections **acknowledged rationing water and basic sanitation issues** at two correctional facilities because of water and electricity shortages following Hurricane Fiona.

Electric Power Restoration

Hurricane Fiona damaged Puerto Rico’s electric transmission and distribution system, which led to an island-wide blackout. Power restoration took several weeks, and approximately [20% of customers remained without electricity](#) more than 10 days after the storm. By October 10, 2022, over 99% of customers had their [power restored](#).

In addition to addressing damage to the transmission and distribution system, temporary waivers were approved to help ensure access to fuel for electricity generation. In response to challenges securing trucks and drivers to provide fuel to power plants, on September 26, the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration issued [an emergency waiver](#) to allow drivers with commercial licenses without a hazardous materials endorsement to haul fuel, which remains in effect for 60 days from the date of issuance. On September 28, DHS [approved a temporary waiver of the Jones Act](#) to address immediate diesel fuel needs for electricity generation. On October 16, DHS approved a [second temporary waiver](#) of the Jones Act “to address the unique and urgent need for liquefied natural gas (LNG) in Puerto Rico.” LNG fueled approximately [44% of Puerto Rico’s total electricity generation](#) in 2021.

Before Hurricane Fiona, Puerto Rico’s electric power infrastructure experienced [more frequent and longer outages than the U.S. average](#). This is in part a result of underinvestment, PREPA’s perceived deficient maintenance practices, and ongoing recovery from the 2017 hurricanes and 2019-2020 earthquakes. In June 2021, [LUMA Energy consortium began managing and operating](#) PREPA’s transmission and distribution assets. Widespread power outages in 2021 and additional outages following Hurricane Fiona have raised concerns about the condition of [PREPA and LUMA’s performance running the power grid](#).

Author Information

Erica A. Lee
Analyst in Emergency Management and Disaster
Recovery

Adam G. Levin
Analyst in Economic Development Policy

Corrie E. Clark
Specialist in Energy Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS’s institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However,

as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.