Question#:	1
Topic:	Puerto Rico's Grid
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: How fragile is Puerto Rico's grid right now, as we head into another hurricane season and following the island-wide blackout which occurred the week of April 15th?

Response: The Puerto Rico Power Authority's (PREPA) infrastructure was fragile prior to the past hurricane season due to the age of the existing infrastructure and poor maintenance of the power grid, caused in part by liquidity issues. Producing and delivering power to customers takes generation, transmission, sub-transmission (in Puerto Rico), and distribution. PREPA has several generating units out of service for repairs or other operating factors and four generating units out of service for economic reasons, so generation is not stable. Emergency repairs on the transmission and sub-transmission infrastructure are not yet completed, and transmission forms the backbone of how power moves around the island. Finally, there is still work to do in neighborhoods to complete the distribution system. Emergency work is being completed as quickly as possible to bring power up completely across the island; however, this is not the final stage to rebuild the power grid. Therefore, the system will continue to be fragile until permanent work can be completed.

However, as we move to permanent work, the Commonwealth of Puerto Rico, PREPA, DOE, FEMA, RAND, and others are working together to design a grid that is standardized, resilient, modern, and scalable. Restoration activities conducted by PREPA and the Army Corps of Engineers have already improved many components of the Puerto Rican grid. The recovery of Puerto Rico's power grid through mitigation and permanent work will continue to result in a more stable grid system.

Thanks to action taken by Congress, FEMA has new authorities in the Bipartisan Budget Act of 2018 to provide Public Assistance funding in Puerto Rico (and the U.S. Virgin Islands) for critical services to replace or restore systems to industry standards without restrictions based on their pre-disaster condition. The law further allows FEMA to provide assistance for critical services to replace or restore components of a facility or system that was not damaged by a disaster when it is necessary to fully effectuate the replacement or restoration of disaster-damaged components to restore the function of the facility or system to industry standards.

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Question#:	2
Topic:	Comparison
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: Please describe how the devastation to the island caused by Hurricanes Irma and Maria compares to the impact of hurricanes that made landfall in years past?

Response: We understand the natural inclination to compare responses to large-scale disasters. There are similarities among disasters of any kind both in terms of the effects – power outages, displaced families, damaged and destroyed property, piles of debris – and whole community response. But that is where the similarities end. An old emergency management adage – every disaster is local – sums it up best.

The path of Irma primarily affected the northern portion of the Island, while the route of Maria nearly cut the Island in half from the southeast corner to the northwest corner. Hurricane Maria was the strongest hurricane to impact Puerto Rico since 1928 and had sustained winds of up to 155 miles per hour and up to 40 inches or more of rain in some regions.

Hurricane Maria caused an unprecedented level of devastation to an already degraded power grid. Components of the transmission system toppled over in many places, often in areas with challenging topography that complicated restoration, and the distribution system, whose infrastructure was often already overtaxed by communications lines and other equipment, was mangled in locations across the Commonwealth. Several substations were flooded as well. These circumstances led to total system failure and a resulting blackout starting on September 20, 2017 that has been reported to be the longest in U.S. history.

Question#:	3
Topic:	Lessons Learned
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: What lessons did FEMA learn in responding to back-to-back hurricanes, and is the Agency better prepared to respond to a possible similarly timed series of storms this hurricane season?

Response: FEMA has learned, and will continue to learn, from the historic 2017 hurricane season. FEMA has taken steps to ensure that these lessons transform the way FEMA and the emergency management community responds to and recovers from future disasters. Some of the key lessons learned from this past year include:

- To improve FEMA's ability to scale a response for concurrent, complex incidents, FEMA plans to collaborate with federal partners and the White House to revise the National Planning Frameworks and Federal Interagency Operational Plans to emphasize the stabilization of critical lifelines and coordination across critical infrastructure sectors.

- FEMA has also updated hurricane plans, annexes, and procedures for the continental United States and OCONUS states/territories (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, Hawaii, Puerto Rico, and the U.S. Virgin Islands).

- FEMA is also training and exercising with federal, state, and tribal partners to ensure readiness across the emergency management community.

- FEMA sponsored the National Level Exercise (NLE) 2018, which included a scenario of a Category 4 hurricane impact on the mid-Atlantic coast. Although the scenario was selected before the 2017 hurricane season, the exercise allowed FEMA, and the whole community, to test and validate plans and initial lessons learned from the 2017 hurricane season. More than 200 organizations participated, including governments at all levels, private businesses, nonprofit organizations, and critical infrastructure owners and operators. The events focused on several important themes from the 2017 hurricane season including pre-landfall protective actions, coordination with the private sector to manage a large-scale power outage and cascading impacts to other critical infrastructure sectors, the evacuation and sheltering of vulnerable populations, operational continuity and emergency communications, and planning for the delivery of recovery programs in a complex environment.

- To improve the overall readiness of the FEMA's incident workforce in the event of needing to staff concurrent, complex incidents, FEMA is focusing on several initiatives. These initiatives include conducting a Coordinated Workforce Review of our force

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structure for incident management, incident support, and mission essential functions in order to effectively deploy the incident workforce and incorporate lessons learned from the 2017 disaster season. FEMA is also professionalizing doctrine and policy that guides the Personnel Mobilization process and procedures to quickly integrate deployed staff into field operations. FEMA continues to work towards its target force structure by improving and expanding our field leadership capabilities through targeted recruiting and a formal training and development program, designed to ensure certified personnel effectively lead response and recovery operations.

- In situations where disaster response requires more than FEMA's organic capabilities, FEMA will need to augment its workforce. FEMA is updating and revising the Concept of Operations for the Surge Capacity Force and conducting additional mobilization exercises to ensure the readiness of SCF volunteers when needed. In addition to SCF support, FEMA is also bolstering the readiness of state and local partners by conducting a coordinated FEMA Qualification System (FQS)/National Qualification System (NQS) training pilot program in Puerto Rico to support the readiness of our state and local partners.

- To improve sustained whole community logistics operations in preparation for the 2018 hurricane season, FEMA has updated high-priority, national-level contracts, including the National Evacuation Contract, Caribbean Transportation Contract, and National Ambulance Contract. Specific to the Caribbean, FEMA has increased planning factors for the Caribbean and disaster supplies, including meals, water, tarps, sheeting, cots, blankets, infant and toddler kits, durable medical kits, consumable medical kits and generators on the islands in preparation for the 2018 hurricane season. In addition to the generators located at the Caribbean Distribution Center, FEMA is planning to maintain an increased number of generators in place in Puerto Rico as compared to historical numbers. FEMA is adding 300 new emergency generators to the inventory. A new associated contract simplifies maintenance and support for these newer generators. The Caribbean Distribution Center is being repaired and expanded in Puerto Rico to accommodate the additional commodities the agency will stockpile. Until this is complete, leased storage space will be used.

- To expand transportation capabilities, 75 percent of FEMA's current 53-foot trailers are being converted to 40-foot trailers over five years, allowing for better access to disaster sites and transportation to island locations. FEMA Logistics is also developing a new transportation contract for the Caribbean for end-to-end support from CONUS to the islands.

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- While FEMA continues to hire staff for the logistics cadre, FEMA logistics is also conducting operational training to increase certified staff numbers for the reception and distribution of commodities. Additionally, FEMA is reviewing its resource request process in an effort to implement process improvements and streamline resource requests. FEMA is also increasing its capacity for logistics training and exercises with SLTT partners.

- To improve FEMA's ability to respond during long term infrastructure outages, FEMA disaster communications is refining tactical and long-haul communications, from land mobile radios to satellite communications.

- Specific to the Caribbean, FEMA Region II is taking additional steps to bolster existing communications capabilities, ensuring it can continue to provide prompt, efficient and effective communications support to all levels of government during future disasters. FEMA intends to develop a more comprehensive understanding of local, regional, and national supply chains, as well as stronger relationships with critical private sector partners to support rapid restoration in response to catastrophic incidents. Additionally, Region II will increase the capabilities for survivable, sustainable and redundant communications in advance of the 2018 hurricane season. Region II, in conjunction with the Disaster Emergency Communications Division of FEMA Headquarters and partners from a host of other territorial and federal agencies, is continuing to develop State Emergency Communications Plans and a Regional Emergency Communications Plan. The Regional Emergency Communications Plan will examine the current communications landscape and consider methodologies to be implemented for increased satellite, land mobile radio, terrestrial and other mediums of communications should a disaster strike.

- To capitalize on innovations that FEMA developed during the 2017 hurricane season to improve mass care to initial housing operations, the agency will be modernizing housing inspections to improve the survivor experience and streamline the process. The goal is to lessen the inspection burden for the disaster survivor and better leverage similar efforts across the federal government. FEMA also strives to better share data across entities to reduce or eliminate the need for multiple inspections. This involves utilizing a more innovative inspection prioritization method, including assessing damage based on an applicant interview, and using geospatial data. FEMA has also reconvened intra-agency working groups dedicated to improving housing operations. Finally, FEMA will seek to improve the delivery and effectiveness of housing options, including exploring grant-making authority. FEMA will also work with its federal partners to clarify agency roles and responsibilities.

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Many of the lessons learned also informed FEMA's 2018-2022 Strategic Plan which outlines goals and objectives to Build a Culture of Preparedness, Ready the Nation for Catastrophic Disasters, and Reduce the Complexity of FEMA.

Question#:	4
Topic:	Power to the Caguas Region
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: What are the challenges to fully restoring power to the Caguas region?

Response: The Caguas region was heavily damaged and is extremely mountainous. Since there was little maintenance on the system, roads are having to be cut to access some locations. Also, specialized equipment is needed to fit into narrow roads, helicopter work is required on the distribution system, and drones have been used to get into hard to access areas. In some cases, crews have to get to their work zone by helicopter and their equipment is being flown into the mountains as well. The helicopter work is impacted by weather, so that adds to the complexity. Materials, life support for the crews, and access to hard hit areas were also major factors. Crews have continued to work in the area and as of June 11, 2018, the PREPA Caguas Region is at 97.88 percent restored.

Question#:	5
Topic:	Preparations
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: How is FEMA preparing for preparing for upcoming storms? For example, is the Agency leading trainings and exercises, or will emergency generators be left on the island in the event that Puerto Rico experiences similar power outages?

Response: In preparation for the upcoming 2018 Hurricane season, FEMA and the Commonwealth are participating in a number of exercises. The Healthcare Leadership for Mass Casualty Incidents (HCL) Course is a three-day course from May 29 to June 1, 2018, that will address disaster preparedness at the facility and system level.

The Integrated Emergency Management Course (IEMC) from June 11to14, 2018, is an exercise-based training activity for Emergency Operations Center personnel to practice simulated, but realistic, crisis situations, within a structured learning environment. The jurisdiction will select the hazards and core capabilities to simulate in the classroom and exercise components of the course. The design will reflect the jurisdiction's specific hazards and organizational structure included in its emergency plans.

Lastly, there will be a full scale exercise from June 18 to 22 that will test activation, integration and transition procedures. Participants include:

- **Incident Management Assistant Team (IMAT)** Readiness Exercise - Annual readiness evaluation of National and Regional IMAT capability for one National and one Regional IMAT
- **Regional and National Response Coordination Center Exercise** - Caribbean Hurricane scenario based exercise for Region II RCC and NRCC Staff
- **Puerto Rico NQS IMT Training and Exercise** - Initial National Qualification System Training and exercise for Puerto Rico Incident Management Team (IMT) development
- **PREMA Commodity Distribution Exercise** - Table top planning and execution of commodity distribution strategy for selected municipalities and select designated distribution points.

The Capacity Building Sector is also working on completing a Hurricane Season 2018 Contingency Plan with the region, DHS, the Commonwealth and other internal and external stakeholders. The group is working on a number of issues that include response transition, IOF and JFO location, PREMA coordination and LNO’s, Commodity Storage and PREMA Distribution plan and Critical Infrastructure Assessment.

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There are generators on the island in preparation of the upcoming Hurricane season. As of May 14, 99 percent or 2,182 out of 2,193 total sites for the temporary power mission have been completed. There are 791 generators currently installed at critical facilities around the island.

Question#:	6
Topic:	Extending USACE's Mission
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: In light of the all-island power outage which occurred the week of April 15th, will FEMA extend USACE's mission assignment until the grid is more stable?

Response: On May 17, FEMA approved the extension of the U.S. Army Corps of Engineers (USACE) mission assignment for emergency power restoration. This extension will allow for the lease, generation and maintenance of all three mega generators until the Puerto Rico Electric Power Authority (PREPA) completes its purchase of these generators.

Additionally, this assistance includes continuing the support for more than 700 generators that are in use throughout Puerto Rico and it includes the extension of USACE's logistics and materials management capability until PREPA can effectively manage the volume of emergency restoration materials.

At the direction provided by the PREPA Chief Executive Officer and the Energy Unified Command Group, as of May 18, USACE will no longer provide line restoration work for PREPA. PREPA will oversee their contractors and the remaining work in grid restoration.

Question#:	7
Topic:	Work Done
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: How would you describe the work done by FEMA-contracted entities on Puerto Rico's electric grid?

Response: FEMA has not directly contracted any entities to date to work on the electric grid.

Question#:	8
Topic:	Whitefish Contract Reimbursement
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: There have been contradictory press reports on whether FEMA will be reimbursing the Whitefish contract to restore power to the Island. Will the Agency reimburse it?

Response: FEMA has not received any invoices from PREPA for reimbursement related to Whitefish.

Question#:	9
Topic:	Contract Funds
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: There are a number of contracts awarded by FEMA with obligated funds that have not been completed, or are seriously delayed in performance. These include, but are not limited to: Tribute Contracting, Filcor, Inc., and Master Group. Does the Agency plan to de-obligate or disburse the remaining funds?

Response: FEMA has multiple active contract awards of various types: fixed price, firm fixed-price, time and materials, etc. The timing of the payout of funds is dependent on the work to be done, the funding method, and the contract type. For those contracts for which all obligated funding is not expended, FEMA intends to de-obligate such funds as appropriate.

Question#:	10
Topic:	Stafford Act
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: Based on the recovery process so far and the proximity of hurricane season, is it your belief that the Stafford Act should be amended to increase the cost share to 100 percent of long-term permanent recovery projects in Puerto Rico?

Response: FEMA recognizes that the scale of devastation in Puerto Rico will necessitate a significant financial investment and require long-term support for recovery to be successful. FEMA has previously supported the Governor's requests for increased cost shares for all categories of Public Assistance up to 90 percent and temporary cost share adjustments for debris removal and emergency protective measures up to 100 percent. Responding to and recovering from the impacts of disasters are shared responsibilities. The provision of 100 percent federal assistance for long-term recovery projects removes the intrinsic stewardship incentives of the shared governance structure. This arrangement has, in the past, contributed to higher costs and delayed recovery.

FEMA believes it is important that Puerto Rico continue to also invest in its permanent recovery and does not support a federal share increase to 100 percent. Puerto Rico has multiple options for contributing its cost share portion. Congress has appropriated significant Community Development Block Grant - Disaster Recovery (CDBG-DR) funding to the Department of Housing and Urban Development (HUD), who has allocated approximately $20B to Puerto Rico. Historically, HUD has allowed CDBG-DR recipients to apply those funds towards cost share requirements. Puerto Rico could propose purposing a portion of its CDBG-DR to satisfy some or all of the cost share. Additionally, FEMA has authorized Puerto Rico to utilize the Hazard Mitigation Grant Program Global Match which allows it to aggregate and leverage multiple funding sources to meet a combined cost share amount, rather than requiring a cost share on each individual project. Finally, Congress appropriated up to $150M in each of the second and third disaster supplementals (Additional Supplemental Appropriations for Disaster Relief Requirements Act, 2017, Pub. Law, Pub. L. No. 115-72 and Further Additional Supplemental Appropriations for Disaster Relief Requirements Act, 2018, Pub. L. No. 115-123) for the Disaster Assistance Direct Loan Program (DADLP) to be available for loans to advance the non-Federal share. At this time, Puerto Rico has not requested a loan through the DADLP.

Question#:	11
Topic:	Minimize the Obstacles
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: How could policymakers redesign and rebuild Puerto Rico's energy grid in a way that would minimize the obstacles FEMA faced post-Maria in providing efficient and effective emergency management services?

Response: FEMA is working collaboratively with the Government of Puerto Rico, PREPA, the U.S. Department of Energy, and other federal and industry stakeholders to develop, design and implement strategies that support a resilient energy system and enduring economy. These partners will continue to work together to develop strategies based on the lessons already learned through the Hurricane Maria response effort: the grid would benefit from using a widely-used set of utility standards (i.e., the USDA Rural Utilities Service standards that have recently been adopted by PREPA), standardized materials, newer technology, generation in the north closer to the major urban areas, and improved right-of-ways, among other improvements. Equally as important, any redesign must build in a robust operations and maintenance program and vegetation management program – lack of these two programs alone contributed significantly to the restoration challenges – and should be supplemented by enhanced emergency planning.

Question#:	12
Topic:	Engaging Community Leaders
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: Has your Agency worked with community leaders to engage them in the rebuilding process? If so, please indicate which ones.

Response: FEMA coordinated with voluntary organizations that responded to Hurricane Maria from both the Continental United States and the island itself. Organizations such as the Salvation Army, American Red Cross, Samaritans Purse and others[1] provided the primary means to distribute commodities to the impacted communities throughout the island.

Through FEMA's Voluntary Agency Liaisons (VALs) the agency provides voluntary organizations trainings on the FEMA Individual Assistance Sequence of Delivery[2], information including case work and case management, GIS maps, contacts to subject matter experts, regular updates on other FEMA program mission areas like U.S. Army Corp of Engineers Blue Roof program and other assistance to help the volunteer groups maximize their impact.

Many survivors have additional needs beyond what can be provided by FEMA programs. FEMA works closely with the government of Puerto Rico, other federal agencies (e.g., the U.S. Small Business Administration Disaster Loan Program) and faith-based and voluntary organization partners to help match survivors with other sources of assistance. Working with voluntary agencies and the government of Puerto Rico, survivors have many housing options available and we are working diligently with those survivors to help ensure they receive all the assistance they can.

FEMA has and continues to coordinate extensively with over 100 voluntary organizations in disaster operations. These voluntary organizations have participated in various FEMA missions including mass care operations, public property debris removal, emotional and spiritual care, and immediate needs assistance for survivors, shelter operations, assistance to people with access and functional needs, and assistance to children.

FEMA and voluntary agencies are partnering on the Voluntary Agencies Leading and Organizing Repair (VALOR) Program initiative to assist voluntary agencies in providing minor repairs to help survivors return to homes that are clean, secure, and ready for

[1] National VOAD and Other Voluntary Organizations Play Critical Role in Housing Cleanup: https://www.fema.gov/news-release/2017/11/12/4339/national-voad-and-other-voluntary-organizations-play-critical-role-housing

[2] Individual Assistance Sequence of Delivery: https://www.fema.gov/pdf/about/regions/regioni/sequence2008.pdf

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further rebuilding. VALOR provides a structure for FEMA to provide supplies, materials, and personal protective equipment to participating voluntary organizations. It also provides building materials and equipment to approved voluntary organizations providing minor repairs to return survivors to homes that are safe, habitable, functional and ready for further repairs. Under this program FEMA secured over $839,000 worth of building materials to be used by voluntary organizations conducting temporary home repairs.

Question#:	13
Topic:	FEMA Officials in Puerto Rico
Hearing:	Update on the Restoration of Puerto Rico's Electric Infrastructure
Primary:	The Honorable Frank Pallone Jr.
Committee:	ENERGY & COMMERCE (HOUSE)

Question: How many FEMA officials were in Puerto Rico prior to Hurricane Maria making landfall?

Response: FEMA's National Response Coordination Center (NRCC) was activated to a Level I (the highest level of activation, with all Emergency Support Functions activated) prior to Hurricane Irma's impacts on the U.S. Virgin Islands (USVI) and Puerto Rico. Federal personnel were also pre-positioned in Puerto Rico to coordinate with territorial and municipal officials. This included FEMA staff from the Caribbean Area Division office located in San Juan, regional personnel from FEMA's Region II (which has responsibility for both Puerto Rico and the USVI), as well as Incident Management Assistance Teams (IMATs) that were deployed to the territory.

More than 300 staff were available and ready to assist the island when on September 19, 2017 —only two weeks after Hurricane Irma hit— the eye of Hurricane Maria passed just south of the USVI on its way to making landfall in Puerto Rico on September 20, 2017. One day after Maria made landfall in Puerto Rico, there were already more than 2,000 FEMA and other federal partners' staff on the ground in Puerto Rico supporting response and recovery operations.