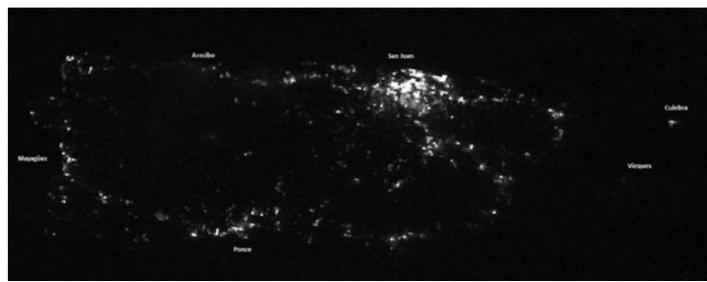
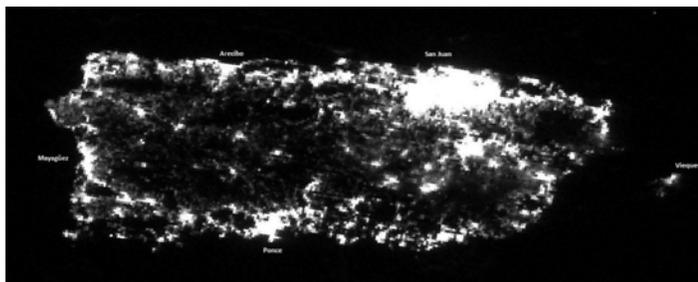


Project
JUNTOS PODEMOS
T O G E T H E R W E C A N
IEEE Puerto Rico Sections

Hurricane Maria wreaked havoc across Puerto Rico disrupting most of the basic services and plunging much of the island into darkness. As of October 27 – over a month after the disaster - most of services have not yet been restored to the interior areas.

Currently, the biggest need in Puerto Rico is power for lighting and drinking water. While some people have the resources to purchase portable generators for their basic needs, most of the poorer people are still living in darkness or using candles.



The picture on the left shows the island before the hurricane, while the photo on the right shows the island shortly after the hurricane clouds cleared.

IEEE members living in Puerto Rico have banded together to help the most severely stricken areas of the island through a two-step approach – first addressing immediate needs through the distribution of solar lanterns for family and individual use, and then deploying medium-term solutions for light and communications in rural communities.

To facilitate the raising of the \$37,500 needed to execute both phases and aid in the recovery of Puerto Rico, the IEEE Foundation established the **IEEE Puerto Rico Disaster Response Fund**. The IEEE Foundation invites you to support providing relief to those impacted by the Hurricane in Puerto Rico.

Phase 1 - Immediate Need – Project Brillo

Distribution of Solar Lanterns for Individual and Family Use

To address the urgent need for lighting, the IEEE Puerto Rico & Caribbean Section is collaborating with La Brigada del Humor – a local NGO – working with the most vulnerable areas in the interior of the island where electricity is not expected to return for six to eighteen months. Together, we will identify the neediest families to receive a Solar Lantern with facilities for phone charging – thereby bringing light and ability to recharge cellular and other devices.

The goal is to serve approximately **15 - 16 towns** and provide approximately **30 - 33 of the neediest families in each of these towns** with a lantern. To reach this goal, 500 lanterns are needed at a total cost of \$12,500.

As soon as the \$12,500 is raised, the order will be placed. Upon delivery, IEEE Section members – including student members – will mobilize and provide their own transportation to bring the lanterns to the towns over the course of several weekends.

*Assuming an mid-November order of the lanterns,
the lanterns should be distributed no later than mid-December 2017.*

Phase 2 – Medium-Term – Project OASIS

Light & Communications for Rural Communities

The Solar Lantern project is just the first stage of IEEE engagement in assisting Puerto Rico with its recovery. To address the medium term needs, IEEE Western Puerto Rico Section and [EPICS in IEEE](#) developed a more extensive lighting and communications project titled OASIS of Light and Communications.

Each OASIS will have a mainframe that will house four PV panels on top and a small securable area that will hold the battery box, electrical boxes, electronic components and a refrigerator. The structure will also hold a 20 W LED lamp.

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Designed to support a total load of 3.88 kWh, each OASIS will enable members of the rural community to charge their cell phones, iPads and other electronic devices through USB connectors. The refrigerator will provide safe storage for medications and other perishables. Each OASIS will cost approximately \$6250. The picture to the right shows a prototype of the OASIS frame.



The goal of Phase 2 is to pilot the OASIS in four (4) communities in the center of the island - Utuado (pop. 29,564), Barranquitas (pop. 28,977), Las Marias (pop. 9,881) and Lares (pop. 26,629). Each OASIS will be installed in a central location – such as a town square – where the broadest possible impact and supervision by the city government partner can be ensured.

As soon as the \$25,000 needed to initiate the pilots is raised, the components will be ordered. IEEE Section members and EPICS in IEEE student members will inspect the components and separate them for delivery to the four locations. Transportation and logistics support will be provided by the University of Puerto Rico Mayagüez Campus.

On the day an OASIS is installed, IEEE members will deliver short presentations about renewable energy, efficient energy equipment, conservation measures and responsible energy behaviors to the community.

After the rural community is re-connected by the Puerto Rico Electric Power Authority (PREPA), a permanent home will be identified for each OASIS – options include nursing homes or a community that will not be connected again to the main grid.

Assuming components for the OASIS are ordered by mid-November, the units should be in place by mid-December.