

Paul Tonko (D-NY-20), Member of the U.S. House of Representatives, hosted a Discussion at [OurEnergyPolicy.org](http://OurEnergyPolicy.org) (OEP) on the federal government's role in addressing grid resilience. Here is a snapshot of the perspectives offered by OEP's diverse community of energy professionals.

*"With the right vision and leadership, we can invest in a smarter, flexible grid that moves us towards a more resilient system"* - Congressman Paul Tonko

## Question 1: What steps should the federal government take to support rebuilding the grid in Puerto Rico?

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| <p><b>Improving Resilience</b></p> | <p>"Congress needs to give Puerto Rico a major financial incentive to write off these outdated assets, and in exchange, Puerto Rico electricity customers going renewable and hardened should receive the same kind of social credit that the Roosevelt Administration gave to US farmers in the 1930's, leading to one of the great electrification successes in history."<br/>- <a href="#">Carl Pope</a>, Former Executive Director, Sierra Club, January 23, 2018</p> <p>"Let's take this opportunity to demonstrate an island system based on renewable energy and resiliency. Making Puerto Rico a center for the development of fossil-free resilient energy for the US would bring needed dollars to the island and fit growing needs for both reducing carbon emissions and increasing resilience against an increasingly difficult environment."<br/>- <a href="#">Ken Dragoon</a>, Managing Consultant, Ecofys, January 22, 2018</p> |
| <p><b>Infrastructure</b></p>       | <p>"I share the Congressman's disappointment on marginally improving the grid in Puerto Rico rather than optimizing a grid worthy of the modern 21st century." - <a href="#">Scott Skar</a>, President, The Stella Group, LTD, January 22, 2018</p> <p>"Right now the most immediate need is to get electricity fully restored. It is shameful that is not getting the attention it deserves from the media or Congress. Why isn't Congress taking FEMA to task?" - <a href="#">Bill O'Keefe</a>, President, Solutions Consulting, January 24, 2018</p> <p>"Rebuilding a grid will take time and is not within the capability of the local small utility...The goal now is short term – restore power to all the people with a more robust distribution system."<br/>- <a href="#">Dr. Andrew Kadak</a>, President, Kadak Associates, Inc., January 31, 2018</p>  |
| <p><b>Climate Change</b></p>       | <p>"When viewed apart from climate change, replacing a ravaged fossil fuel-powered grid with a stronger fossil fuel-powered grid might make sense. But considering that we need to bring greenhouse gas emissions down to zero around mid-century, investing in what will become a stranded asset is short-sighted." - <a href="#">Dan Miller</a>, Managing Dir., The Roda Group, February 2, 2018</p>  |
| <p><b>Grid Modernization</b></p>   | <p>"An all centralized or all decentralized electricity future for Puerto Rico are not likely to be the optimum path forward. It would be refreshing if someone provided a concept of an optimized mix of centralized and decentralized systems" - <a href="#">Herschel Specter</a>, President, Micro-Utilities, Inc.</p> <p>"First, a detailed, objective analysis of what a resilient and affordable energy system would look like and second, privatizing the existing utility by selling it to either private investors or a major utility that would commit to implementing the plan that flows from the analysis."<br/>- <a href="#">Bill O'Keefe</a>, President, Solutions Consulting, January 24, 2018</p>  |

## Question 2: What aspects of “resilience” should FERC and Regional Transmission Organizations consider moving forward?

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| <p><b>Prevention: Hardening the Grid</b></p> | <p>“Clearly a hurricane pathway like Puerto Rico with no access to local fossil fuels and no pipeline access to natural gas ought to be moving off of conventional, fossil-fired wire-and-pole electricity as fast as possible, hardening its key infrastructure nodes and taking advantage of local renewable resources.” - <a href="#">Carl Pope</a>, Former Executive Director, Sierra Club, January 23, 2018</p> <p>“The discussion should not be about micro or macro grids but how build a stronger grid that can withstand such a tremendous force. My observation is that the new poles and towers are more robust. It is not clear that one can prevent such damage without burying all lines.<br/>- <a href="#">Dr. Andrew Kadak</a>, President, Kadak Associates, Inc., January 31, 2018</p> <p>A most important statement in Congressman Tonko’s presentation was the observation that over 90% of the grid disruptions are due to the distribution systems. Long term electricity sources, if proven to be practical, like marine energy...and thermal do not solve the distribution vulnerability issue.” - <a href="#">Herschel Specter</a>, President, Micro-Utilities, Inc.</p> <p>The Federal Regulatory Commission (FERC) needs to continue to work towards developing and supporting new and existing markets that promote electrical energy storage; this will increase the value of electrical energy storage investments while enhancing the operation of the grid.<br/>- <a href="#">Dr. Kenneth Zame</a>, Researcher, Energy &amp; Environmental Sustainability</p> |
| <p><b>Recovery</b></p>                       | <p>“The Island’s (Puerto Rico) grids needs sectionalizers and reclosers so parts of the grid can separate itself from non-functioning parts quickly &amp; safely. And then within each section, there needs to be microgrids and community renewable energy which can island apart to be singularly operational to power communities and critical infrastructure”<br/>- <a href="#">Scott Skar</a>, President, The Stella Group, LTD, January 22, 2018</p> <p>“Partitioning the island as Scott Sklar suggests will be essential to any solution but that solution also must be economically practical.” - <a href="#">Bill O’Keefe</a>, President, Solutions Consulting, January 24, 2018</p>   |

## Question 3: How might the federal government support efforts to improve grid resilience across the country?

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| <p><b>Planning</b></p>                 | <p>“Instead of starting with a solution that would make PR a laboratory for wind and solar, the island’s long term interests would be better served by two initial steps. First, a detailed, objective analysis of what a resilient and affordable energy system would look like and second, privatizing the existing utility by selling it to either private investors or a major utility that would commit to implementing the plan that flows from the analysis.”<br/>- <a href="#">Bill O’Keefe</a>, President, Solutions Consulting, January 24, 2018</p> |
| <p><b>Pricing Carbon Emissions</b></p> | <p>“So the solution for a more reliable and resilient grid as well as a more robust economy and healthier public is to put a price on carbon. The best way to do that is the “Fee and Dividend” aka “Carbon Dividends Plan” policy where a rising fee is place on the carbon content of fossil fuels and all the money collected is returned to every legal resident.”<br/>- <a href="#">Dan Miller</a>, Managing Director, The Roda Group</p>   |