



EESI
Environmental and
Energy Study Institute

VIA ECFS

Chairman Thomas Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O’Rielly
Federal Communications Commission
445 12th Street, SW 20024
Washington, DC

Re: GN Docket No. 13-5, Technology Transitions; PS Docket No. 14-174, Ensuring Customer Premises Equipment Backup Power for Continuity of Communications; RM-11358, Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers; WC Docket No. 05-25, Special Access for Price Cap Local Exchange Carriers; RM-10593, AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services; WC Docket No. 10-90, Connect America Fund; GN Docket No. 12-353, AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition

Dear Chairman Wheeler and Commissioners,

Telecommunications Divide in Rural America

The Environmental and Energy Study Institute (EESI) is an independent, non-profit organization, dedicated to promoting an environmentally and economically sustainable society. EESI seeks to advance the transition to a low-carbon economy through a much more energy efficient economy, wisely built infrastructure and a diverse portfolio of renewable energy resources. Founded by a bipartisan Congressional caucus in 1984, EESI is governed by a diverse Board of Directors comprised of environmental, business, and academic leaders, including former Members of Congress.

In a changing climate with more frequent and intense storms, making sure infrastructure systems are durable and reliable is critical. Improvements to infrastructure resiliency, whether they are done in the name of risk management, extreme weather preparedness or climate change adaptation, can help a

region bounce back quickly from the next storm at considerably less cost. Climate change is leading to more destructive storms, and rising sea levels will put coastal areas at unprecedented risk to storm surge. Infrastructure, like everything else, must adapt. Communities must harden roads, bridges, mass transit networks, electricity grids, and other infrastructure to withstand extreme weather. Telephone service is no exception, and is perhaps the most critical link for communities and individuals' safety immediately after a natural disaster.

Increasingly, policy makers and communities are asking if systems and infrastructure that support vital community needs are resilient to the impacts of climate change. Between 2011 and 2013, 48 states and the District of Columbia were designated Presidentially-Declared Disaster Areas. This situation will likely only become worse, as extreme weather events and flooding become more frequent because of climate change. Americans will need a reliable communications system that ensures critical communications are possible during and after natural disasters, power outages, heat waves and other climate-related events that put individuals' and communities health at risk.

Evidence points to an increasingly dire situation with the U.S. communications system. While technology is changing rapidly, regulations to protect the most vulnerable populations' communications needs are not keeping pace. According to former Rep. Waxman (D-CA), Rep. Eschoo (D-CA) and members of the Committee on Energy and Commerce, the performance of wireless and fiber-optic systems are largely untested in terms of disaster preparedness. According to Reps. Waxman and Eschoo, these newer networks "are becoming [for many households] their main means of communication... We are concerned by accounts suggesting those with corded telephones running on copper-line networks were able to communicate [during outages] while those relying on wireless services or fiber optic cables were not." In fact, we at EESI have directly experienced this ourselves both in homes as well as our office settings.

While today's technology may ease the modes and speed of communication, it is not more reliable – and that is particularly so during dangerous power outages, the time when individuals need reliable phone communications most. Traditionally, copper-wire phone systems have provided reliable communications to customers during and after outages. Unfortunately, the rapidly changing phone system has been proven to be anything but reliable. For instance, after Hurricane Sandy in 2012, power outages left millions without wireless, telephone and internet services for 10 days on average. Cell tower outages were spread across ten states. As opposed to the older copper landline system, fiber-optic systems have limited battery-back up. After Hurricane Sandy, vulnerable populations such as the elderly were unable to communicate with loved ones or emergency services. These types of events will continue to occur unless steps are taken to make these newer systems more reliable, and then to help individuals transition to newer technologies and ensure they are affordable and do not result in significantly higher costs. People cannot afford – and should not be required – to pay more for less

service and reliability. The role of the Commission should be central to ensuring this protection for all Americans.

The need for reliable communications systems for vulnerable individuals, first responders, and relief workers is so critical that after Hurricane Sandy, Senator Schumer (D-NY) asked the FCC to “take the lead in developing a nationwide plan to ensure that cell towers don’t lose power for days or weeks in the wake of severe storms, terrorist attacks or other events that cause power failures.” No evidence of this type of plan is available. The impacts of increased extreme weather events are causing a growing need for affordable, consistent and reliable communications systems. Additionally, impacts of outages will be more severe for rural populations. According to the National Climate Assessment, “physical isolation, limited economic diversity, and higher poverty rates, combined with an aging population, increase the vulnerability of rural communities. Systems of fundamental importance to rural populations are already stressed by remoteness and limited access.” Reliable phone service is literally a lifeline for rural communities – and even more so during and after extreme weather events.

Evidence of long-term outages after large-scale extreme weather events such as Hurricane Katrina and Hurricane Sandy raise the importance of phone backups. As more individuals transition from the copper wire phone system, backup power for broadband becomes critically important. However, it is extremely troubling that battery backups for in-home broadband systems last typically for only 8 hours. According to a 2012 Associated Press story on the task of restoring power after major weather events, after Hurricane Sandy, service was restored to 95 percent of customers after 12 days. After Hurricane Katrina, it took the utilities an average of 15 days to restore power to 95 percent of customers. Returning service to the majority of customers after other hurricanes in the last several years took an average of between 7 and 23 days. Therefore, a backup system for fiber-optic systems that lasts at minimum, 10 days, is reasonable, and more time may be warranted in communities that are particularly reliant on landline service, or experience more frequent outages than average. Additionally, asking customers to be responsible for their own back-up systems will put millions at risk of lacking access to phone service during outages. This is also very difficult for local rural small businesses and their ability to conduct economic activity. This lack of access can cause undesirable economic injury to already vulnerable and poor rural communities.

Asking customers to maintain battery backups who are used to a reliable and affordable system, may be insufficient at best, and would likely be dangerous for those who rely solely on hard wired phones for 911 service. For instance, two companies don’t automatically offer customers the standard 8 hour battery backup system in new fiber optic land lines. According to Consumer Reports, Cablevision and Missouri-based Charter Communications charge a fee of \$30 to \$40 for battery backups to individual’s landlines. Less than one percent of customers serviced by these companies have elected to buy the backup system, leaving 99 percent with no backup in case of an outage. This one example raises

questions about affordability of such systems, and a general lack of education on the importance of battery back-ups.

The consumer protections in the newer fiber optic systems are insufficient. Not only are customers bearing a greater portion of the costs to maintain these systems, they are expected to understand the complexities involved in the transition from the copper wire system to fiber optic. And while fiber optic systems may provide faster service – their inability to work during long-term outages raises serious concerns. Rural communities are on average, older, poorer and less educated than urban populations. Simply put – rural communities do not have the resources to deal with these technology transfers on their own. System back-ups and redundancies to protect individual’s access during outages is also severely lacking. Just as rural electrification turned on the lights for millions – the FCC must ensure this critical communications link provided to some of our most vulnerable citizens is not severed.

A handwritten signature in black ink that reads "Carol Werner". The signature is written in a cursive, flowing style.

Carol Werner
Executive Director