

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

Inquiry Concerning Deployment of)	GN Docket No. 17-199
Advanced Telecommunications)	
Capability to All Americans in a)	
Reasonable and Timely Fashion)	

**COMMENTS OF THE
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)**

In response to the August 8, 2017 “Thirteenth Section 706 Report Notice of Inquiry” issued by the Federal Communications Commission, the National Electrical Manufacturers Association (NEMA) provides the following comments about the important role that high-speed internet serves for U.S. manufacturers, including for electrical and medical imaging products and systems.

NEMA is the association of nearly 350 electrical equipment and medical imaging technology manufacturers that make a diverse set of products used in the generation, transmission, distribution, and end-use of electricity. Our combined industries account for more than 400,000 American jobs and more than 7,000 facilities across the United States. Domestic production exceeds \$114 billion per year and exports top \$50 billion.

Many NEMA members manufacture connected devices—smart thermostats, connected lighting systems, smart meters, smart grid technologies, medical imaging equipment, and more—that rely on both fixed and mobile internet connections. More and more devices are being connected to the Internet of Things—tens of billions of devices in the coming years, according to

many industry predictions—increasing the importance of providing all Americans with fast, reliable, affordable, and accessible broadband.

In response to the NOI, NEMA offers three comments:

- The FCC should set targets for both fixed and mobile broadband that are sufficiently fast to accommodate high-bandwidth uses and a proliferation of internet-connected devices;
- In addition to schools and classrooms, the FCC report should evaluate the availability and accessibility of broadband for apprentice training centers, community colleges, and other vocational institutions; and
- The report should include an assessment of the availability and accessibility of broadband for manufacturing facilities.

The FCC Should Set Targets for *both Fixed and Mobile Broadband*

Paragraph 9 of the NOI seeks comments on “whether *some form* of advanced telecommunications capability, be it fixed *or* mobile” satisfies the FCC’s statutory requirement to evaluate the deployment of broadband to all Americans in a reasonable and timely fashion.

NEMA firmly believes that American households, businesses, schools, hospitals, and manufacturers need affordable access to *both* high-speed fixed *and* mobile broadband.

NEMA members manufacture products that use fixed and mobile networks in different ways. For example, many connected home technologies use fixed residential connections to control home comfort, monitor smoke and carbon monoxide levels, and even higher bandwidth uses like streaming video. Other products, especially smart grid products, rely on mobile network access to relay information to utilities about the status of the electric grid and can help restore

power quickly after an outage. Hospitals require high-bandwidth fixed connections to process medical images with large file sizes. The FCC should not allow access to *either* fixed *or* mobile broadband be a substitute for access to *both* fixed *and* mobile broadband.

NEMA further believes that the current benchmark speed of 25 Mbps download/3 Mbps upload is not sufficiently “advanced” considering many Americans have access to fiber optic networks with speeds of 500 Mbps to 1 Gbps (and even faster in some areas). According to the latest *Ookla Speedtest Market Report*, the average fixed internet connection in the United States had a download speed of 54.97 Mbps and an upload speed of 18.88 Mbps as of June 2016.¹ The United States does not rank in the top ten average internet speeds globally; therefore, the FCC should raise the bar to improve the United States’ global competitiveness. To do so, the FCC should raise the fixed broadband benchmark to 100 Mbps download/50 Mbps upload for all Americans—a goal that is in line with the recommendations of the FCC’s *National Broadband Plan*.²

For mobile broadband, a benchmark of 10 Mbps/1 Mbps approximately reflects 4G LTE speed, and as such is an acceptable mobile broadband benchmark based on available technology.

In Addition to Schools, the FCC Should Evaluate Broadband Access for Vocational Training

NEMA supports a concerted focus on providing broadband access for educational institutions of all types. Training our nation’s students for the careers of the future requires access to high-speed internet to watch educational videos, conduct research, and more. NEMA encourages the FCC to expand its focus to include vocational training centers like apprenticeship

¹ <http://www.speedtest.net/reports/united-states/>

² <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf>

programs and community colleges. This will help ensure that all students—not just those on a four-year college trajectory—have access to the resources needed to develop into the next-generation workforce that the United States needs to remain a globally competitive economy.

The Assessment Should Evaluate Manufacturers' Access to Broadband

In addition to homes and schools, the U.S. industrial sector also relies on access to broadband internet. U.S. manufacturers depend on fast internet connections to operate sophisticated industrial equipment, to process large amounts of data, and for voice and video communication with partners around the world. Many manufacturing facilities are located in rural parts of the country with limited access to high-speed internet connections, and NEMA members are reporting bandwidth shortages in some of their facilities. As the U.S. manufacturing sector counts on internet access more heavily with each passing day, the FCC should work to ensure that the American industrial sector also has access to advanced telecommunications capabilities by including in its report an assessment of the availability and accessibility of broadband for manufacturing facilities.

Conclusion

NEMA thanks the Commission for seeking public comment on this important topic. We look forward to working with the FCC as it continues to explore ways to deploy advanced telecommunication capabilities to all American homes, businesses, and schools.

Should you have any questions about these comments, please contact Patrick Hughes, Senior Director of Government Relations and Strategic Initiatives at patrick.hughes@nema.org or 703-841-3205.

Respectfully Submitted:

A handwritten signature in black ink that reads "Kyle Pitsor". The signature is written in a cursive style with a large, stylized initial "K".

Kyle Pitsor
Vice President, Government Relations
National Electrical Manufacturers Association

Date: September 6, 2017