REPLY OF THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
TO THE CONSOLIDATED OPPOSITION TO APPLICATIONS FOR REVIEW
OF HIGHER GROUND LLC

The National Rural Electric Cooperative Association (“NRECA”), by its attorneys and
pursuant to Section 1.115(d) of the Commission’s rules, hereby submits its reply to the
Consolidated Opposition to Applications for Review (“Opposition”) filed by Higher Ground
LLC (“Higher Ground”).

In January, the Commission issued an Order approving a waiver request filed by Higher
Ground that sought authority to deploy up to 50,000 mobile satellite earth stations nationwide in
the 5925-6425 MHz band (“6 GHz Band”).¹ Four parties – Enterprise Wireless Alliance,
Utilities Technology Council, Fixed Wireless Communications Coalition, and APCO
International – filed Applications for Review, seeking full Commission review and
reconsideration of the Order. On March 6, 2017, Higher Ground filed the Opposition.

INTRODUCTION

NRECA is the national service organization for more than 900 not-for-profit rural electric
cooperatives that provide electric energy to approximately 42 million people in 47 states or
approximately 12 percent of electric customers. Rural electric cooperative infrastructure covers

¹ In the Matter of Higher Ground LLC, Order and Authorization, IBFS File No.: SES-LIC-20150616-00357, DA 17-
80 (rel. Jan. 18, 2017)(“Order”).
75% of the land mass of the United States. NRECA’s members include approximately 65
Generation and Transmission (“G&T”) cooperatives and 840 Distribution cooperatives. Rural
electric cooperatives were formed to provide safe, reliable and affordable electric service to their
member-owners at the lowest reasonable cost. Electric cooperatives rely on robust voice and
data communications to run their systems to provide reliable, safe and affordable electric service
to their member owners. Rural electric cooperatives are dedicated to improving the
communities in which they serve; management and staff of rural electric cooperatives are active
in rural economic development efforts. Electric cooperatives are private, non-profit entities that
are owned and governed by the members to whom they deliver electricity.

DISCUSSION

Higher Ground requested – and was granted – a waiver from the Commission to operate
up to 50,000 mobile satellite earth stations nationwide in the 6 GHz band. This band is allocated
on a co-primary basis for use by fixed service licensees. These fixed service operators include
public safety organizations, critical infrastructure entities, and other wireless providers that
collectively operate nearly 60,000 point-to-point microwave links in the 6 GHz band. Many of
NRECA’s members rely on private, licensed point-to-point microwave networks operating in
this band for voice and data communications associated with the management of electric
transmission and distribution grids, including protective relaying and other applications having
low latency requirements.

NRECA and its members are concerned that Higher Ground’s operations will cause
harmful interference to these 6 GHz networks because Higher Ground has failed to demonstrate
its mobile satellite earth stations will adequately protect incumbent fixed service licensees in the
6 GHz band. The source of interference caused by Higher Ground’s mobile operations will
prove difficult to identify in real-world operating environments and challenging to resolve. The concern is even more acute for NRECA and its members because Higher Ground claims its service will be particularly useful in areas unserved by terrestrial commercial cellular service.\(^2\)

These are the same geographic regions in which NRECA members operate their networks, thereby increasing the likelihood that interference from Higher Ground’s operations will disproportionately – and negatively – impact the point-to-point microwave networks of NRECA’s members. The record in this proceeding lacks sufficient assurances that Higher Ground’s operations will prevent interference to NRECA’s members’ microwave systems in the 6 GHz band. Accordingly, NRECA urges the Commission to reconsider its approval of Higher Ground’s waiver request or, at a minimum, place additional conditions on Higher Ground’s operations to ensure incumbent 6 GHz licensees are adequately protected and can promptly identify harmful interference caused by Higher Ground’s operations.

The Commission placed several conditions on Higher Ground’s operations, including requiring Higher Ground to: maintain an activity log, cease operations in the event of a database outage, provide written notice of changes in interference algorithms, provide a direct point of contact for shutdown requests, and provide a competent and responsive contact to work jointly towards resolution of harmful interference.\(^3\) The Commission also required Higher Ground to make its coordination data available to any fixed service operator upon request.\(^4\) NRECA urges the Commission to go one step further and ensure incumbent licensees and applicants receive prior notice in advance of Higher Ground’s operations in a given area.

\(^2\) See, Order at ¶¶ 3 and 11.  
\(^3\) Order at ¶29.  
\(^4\) Order at ¶36.
The Order relieves Higher Ground of the FCC’s frequency coordination obligations,\textsuperscript{5} including requirements that Higher Ground notify and receive responses from potentially impacted licensees, permittees, and applicants.\textsuperscript{6} NRECA is not calling for Higher Ground to follow formal frequency coordination requirements for each of its 50,000 mobile satellite earth stations. However, the FCC should require Higher Ground to operate more closely to the agency’s prior coordination rules and provide notice to potentially impacted 6 GHz licensees and applicants before deploying mobile satellite earth stations in a service area. NRECA further requests that Higher Ground provide a monthly log of interference instances to impacted licensees. Interference instances include when Higher Ground terminates or modifies its operations due to detected interference.

These are not onerous requirements. Higher Ground currently relies on a database that is derived from the FCC’s Universal Licensing System (“ULS”), which contains a record of all 6 GHz licensees and applicants by geographic area. The ULS database also includes contact information for all licensees and applicants in the 6 GHz band. Higher Ground accesses this database before deploying each of its mobile satellite earth stations in a service area to determine which 6 GHz channel(s) are available for use by the company’s mobile satellite earth stations in a location.\textsuperscript{7} The Commission should require Higher Ground to also ascertain the contact information from ULS for all co-channel and adjacent channel licensees in the area when it accesses its database to determine channel availability. Higher Ground should use this contact information to notify all nearby co-channel and adjacent channel users of the company’s planned

\textsuperscript{5} 47 C.F.R. §101.103.
\textsuperscript{6} 47 C.F.R. §101.103(d)(2)(i).
\textsuperscript{7} Order at ¶6.
operations before deploying mobile satellite earth stations in that area. The contact information can also be used to provide the log of licensees impacted by Higher Ground’s operations.

The principle benefit of requiring prior notice is to alert incumbent licensees to Higher Ground’s proposed operations in their service area. Such prior notice will allow licensees to monitor their networks and work directly with Higher Ground to quickly and efficiently resolve any interference issues. Periodically providing an interference log to impacted licensees will also promote cooperation between Higher Ground and incumbent licensees in the 6 GHz band.

NRECA and its members are concerned that Higher Ground’s operations will cause harmful interference to existing 6 GHz networks and the concern is more acute for NRECA because Higher Ground’s planned deployments may be concentrated in unserved, rural areas. Accordingly, NRECA urges the Commission to reconsider its approval of Higher Ground’s waiver request and, at a minimum, place additional obligations on Higher Ground to protect – and cooperate with – incumbent 6 GHz licensees.

Respectfully submitted,

March 21, 2017

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CERTIFICATE OF SERVICE

I, Beverly Harding, of the law firm of Keller and Heckman LLP, do hereby certify that on this 21st day of March 2017, a copy of the foregoing REPLY OF THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION TO THE CONSOLIDATED OPPOSITION TO APPLICATIONS FOR REVIEW OF HIGHER GROUND LLC has been served by first class, postage prepaid, mail upon the following:

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