

Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
 )  
Request of Cooperative Energy for Exemption )  
from 47 C.F.R. § 17.47(b) )  
 )

MEMORANDUM OPINION AND ORDER

Adopted: November 15, 2024

Released: November 15, 2024

By the Deputy Bureau Chief, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. Section 17.47(b) of the Commission’s rules requires antenna structure owners to conduct quarterly inspections of certain lighting systems;<sup>1</sup> section 17.47(c) exempts from that requirement systems that the Wireless Telecommunications Bureau (Bureau) has found to include self-diagnostic features sufficient to make the quarterly inspections unnecessary.<sup>2</sup> On October 25, 2023, Cooperative Energy (CE) filed a request for exemption from 47 CFR § 17.47(b) under 17.47(c).<sup>3</sup>

2. Although CE’s request for exemption differs from previous petitions approved by the Bureau, in this Memorandum Opinion and Order we determine that CE’s petition satisfies the criteria of section 17.47(c) and that CE’s antenna structures using the system described herein are therefore, exempt from the quarterly inspection requirement. Our action today should encourage other tower owners to invest in state-of-the-art technologies so that they, too, will become capable of continuous monitoring of both their lighting systems and control devices.

II. BACKGROUND

3. Section 17.47(b) provides that the owner of any antenna structure that is registered with the Commission and that has been assigned lighting specifications pursuant to part 17 of the Commission’s rules “[s]hall inspect at intervals not to exceed 3 months all automatic or mechanical control devices, indicators, and alarm systems associated with the antenna structure lighting to insure that

<sup>1</sup> 47 CFR § 17.47(b).

<sup>2</sup> 47 CFR § 17.47(c).

<sup>3</sup> *Request of Cooperative Energy for Exemption from 47 C.F.R. § 17.47(b)*, dated Oct. 24, 2023 and filed Oct. 25, 2023 (*Request*). Pursuant to an oral request for clarification via phone by Michael C. Smith, Program Analyst, Competition and Infrastructure Policy Division, Wireless Telecommunications Bureau, Cooperative Energy supplemented its waiver request with information regarding the technical characteristics and operational capabilities of both the monitoring and management system employed to generate and receive alarms from the monitoring system. See *Supplement to Tower Monitoring Exemption* dated Dec. 6, 2023 and filed Dec. 8, 2023 (*Supplement*). Pursuant to another oral request via phone by Michael C. Smith, Cooperative Energy further clarified the characteristics of the monitoring system. See Email from Liz Sachs, Lukas, LaFuria, Lantor & Sachs, LLP, to Michael C. Smith, Program Analyst, Competition and Infrastructure Policy Division, Wireless Telecommunications Bureau, dated March 4, 2024, 12:43 PM (*Supplement II*).

such apparatus is functioning properly.”<sup>4</sup> Section 17.47(c) exempts from this requirement “any antenna structure monitored by a system that the Wireless Telecommunications Bureau has determined includes self-diagnostic features sufficient to render quarterly inspections unnecessary, upon certification of use of such system to the Bureau.”<sup>5</sup> As described in the *Part 17 Order*, petitioners either submit a petition for approval of a monitoring system that has not been previously approved by the Commission, or they submit a petition certifying that they are using a previously approved system in the manner described in the order in which that particular system was approved.<sup>6</sup> In this instance, however, CE submitted a petition requesting approval of a hybrid system wherein it would use the previously approved Vanguard Monitoring System,<sup>7</sup> but use its own Network Operations Centers (NOCs) to receive alarms from that system.<sup>8</sup> We have already determined that the Vanguard Monitoring System includes robust self-diagnostic features sufficient to render quarterly inspections unnecessary,<sup>9</sup> so we will not revisit that determination here. We limit our analysis to an evaluation of CE’s NOCs to determine if they are sufficiently robust to support an exemption under 17.47(c) of our rules when used in conjunction with the Vanguard Monitoring System.

4. CE is an energy generation and transmission cooperative, and CE has stated that its 11 member-owned distribution electric cooperatives provide safe, reliable, and affordable power to approximately 448,500 homes and businesses in the State of Mississippi.<sup>10</sup> The provision of this service involves the operation and maintenance of multiple communications towers, 85 of which require some type of obstruction lighting system.<sup>11</sup> CE’s service territory is relatively large and rural, covering more than 50% of the State of Mississippi (more than 24,215 square miles), representing 55 of the 82 counties in the state.<sup>12</sup> CE’s Request asks us to determine that its combination of the Vanguard Monitoring System and its own NOCs (CE Monitoring System) is sufficiently robust to ensure that the control devices, indicators, and alarm systems on antenna structures using the Vanguard Monitoring System are operating properly, such that quarterly inspections are unnecessary.<sup>13</sup> CE argues that the quarterly inspections of antenna monitoring systems mandated by section 17.47(b) are unnecessary for CE’s towers because of technological advancements associated with the CE Monitoring System.<sup>14</sup> CE asks us to provide the same relief granted to other similarly robust systems in the past and grant an exemption from Section 17.47(b) pursuant to section 17.47(c).

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<sup>4</sup> 47 CFR § 17.47(b).

<sup>5</sup> 47 CFR § 17.47(c). Before creating the procedure for exemptions in section 17.47(c), the Commission granted limited waivers of section 17.47(b) and permitted antenna structure owners to conduct annual, rather than quarterly, inspections. After 2014, section 17.47(c) rendered such waivers unnecessary. See *2004 and 2006 Biennial Regulatory Reviews – Streamlining and Other Revisions of Parts 1 and 17 of the Commission’s Rules Governing Construction, Marking and Lighting of Antenna Structures; Amendments to Modernize and Clarify Part 17 of the Commission’s Rules Concerning Construction, Marking and Lighting of Antenna Structures*, Report and Order, 29 FCC Rcd 9787, 9799-9802 (2014) (*Part 17 Order*).

<sup>6</sup> *Part 17 Order* at paras. 33-34.

<sup>7</sup> See *Petition of Cellco Partnership For Exemption from 47 CFR § 17.47(b): Vanguard Monitoring System; Petition of Cellco Partnership For Exemption from 47 CFR § 17.47(b): QLI Monitoring System*, Memorandum Opinion and Order, 34 FCC Rcd 3759 (WTB 2019) (*Cellco Order*).

<sup>8</sup> *Supplement* at 2-4.

<sup>9</sup> See *Cellco Order* at para. 15.

<sup>10</sup> *Supplement* at 1.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at 2.

<sup>13</sup> *Request* at 1; *Supplement* at 2-4; *Supplement II* at 1.

<sup>14</sup> *Request* at 1; *Supplement* at 2; *Supplement II* at 1.

5. As noted above, the CE Monitoring System is a combination of the Vanguard Monitoring System, a system already approved by the Commission, and its own NOCs. The Vanguard Monitoring System itself is the next generation of Flash Technology's Eagle Monitoring System, a system the Bureau has also found to be sufficiently robust to support the elimination of the quarterly inspection requirements.<sup>15</sup> CE asserts that the capabilities of its combined system are "consistent in all material respects" with those described in the *Cellco* and the *American Electric Power Service Corporation*<sup>16</sup> Orders, which will enable it to carry out its responsibilities under Part 17 of the FCC rules.<sup>17</sup>

6. *Alarm Notification and Fail-safe Procedures.* CE's network management system manages the communications systems used in support of its electric grid and includes the monitoring of its communications towers. According to CE, "[b]ecause the Company's electric grid is dependent on its communications networks such as its supervisory control and data acquisition system, the servers at these locations are of the highest priority for the delivery of electric service to its members/customers."<sup>18</sup> CE operates geo-redundant primary and backup network monitoring servers, which receive alarms that are accessible to its engineers and technicians both locally and remotely. These servers are also used to verify the communication path multiple times an hour. Both the primary and backup servers, as well as the remote communication system and tower light controllers, have backup power, and the alarms received by the servers are reviewed daily.<sup>19</sup> The network management system provides alerting over all critical communication network components, including from remote terminal units and lighting controllers. These alerts are provided to the network management system software.<sup>20</sup> Further, the network management system is installed at geographically redundant sets of servers, one of which is installed at the Company's Field Operations Center and the second at its headquarters, both of which are located in Hattiesburg, Mississippi. The servers at both locations have backup power sources that will allow them to continue operating for multiple days at a time, and indefinitely with refueling availability. The Field Operations Center is equipped with a back-up generator and short-term Uninterruptible Power Supply (UPS), and the Company's headquarters is equipped with multiple power feeds, a backup generator, and short-term UPS. Most of the remote sites have a backup generator, and all remote sites have a UPS system. Procedures are in place to address emergency situations should they arise.<sup>21</sup>

7. *Staffing.* While CE's NOCs are not staffed on a 24/7 basis,<sup>22</sup> CE represents that it has extensive monitoring and alarm systems in place for its electric system and communications towers.<sup>23</sup> Importantly, all alarms are reviewed on a daily basis. The server centers have experienced staff on site during normal business hours, trained in the proper procedures for responding to alarms. Staff will trigger

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<sup>15</sup> *Cellco Order* at para. 14. See also *Requests of American Tower Corporation and Global Signal, Inc., to Waive Section 17.47(b) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd 9743 (2007) (*ATC/GSI Order*); *Petition of Optasite Towers LLC for Waiver of Section 17.47(b) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd 18456 (WTB 2007) (*Optasite Order*); *Request of Mobilitie LLC for Waiver of 47 CFR § 17.47(b)*, Memorandum Opinion and Order, 24 FCC Rcd 11949 (WTB 2009) (*Mobilitie Order*).

<sup>16</sup> *American Electric Power Service Corporation*, Memorandum Opinion and Order, 38 FCC Rcd 296 (WTB 2023) (*AEP Order*).

<sup>17</sup> *Supplement* at 2; *Supplement II* at 1.

<sup>18</sup> *Supplement* at 2.

<sup>19</sup> *Request* at 1, fn. 3.

<sup>20</sup> *Supplement* at 2.

<sup>21</sup> *Id.* at 2-3.

<sup>22</sup> *Id.* at 3-4.

<sup>23</sup> *Id.* at 2-3.

a NOTAM<sup>24</sup> if necessary, resolve the problem, and record the event and its resolution. An alarm received at night is reviewed promptly in the morning. During weekends, a trained individual is designated to log in at least once a day to check for and address any alarms. Thus, CE states that all alarms are addressed within, at most, 24 hours.<sup>25</sup>

### III. DISCUSSION

8. We find that the hybrid CE Monitoring System “includes self-diagnostic features sufficient to render quarterly inspections unnecessary,”<sup>26</sup> and is similar to the monitoring systems we have evaluated in other orders. On May 15, 2007, the Commission granted American Tower Corporation (ATC) and Global Signal, Inc. (GSI) waivers of section 17.47(b) to allow annual, rather than quarterly, inspection of towers monitored by specified, technologically advanced monitoring systems.<sup>27</sup> In the *Part 17 Order*, the Commission granted exemptions from all inspection obligations to those entities previously granted a waiver for their antenna structures monitored by qualifying systems, as long as they continued to meet the advanced monitoring obligations to which they had already certified.<sup>28</sup> Since then, the Bureau has, on delegated authority, granted similar waivers to entities demonstrating that their systems were similarly robust, and were operated in a similar manner, to the systems described in the *ATC/GSI Waiver Order*.<sup>29</sup>

9. We find that the hybrid CE Monitoring System, when used in the manner described by CE, justifies an exemption from the quarterly inspection requirement of section 17.47(b) pursuant to section 17.47(c). Importantly, the CE Monitoring System has extensive monitoring and alarm systems in place for its electric system and communications towers, is reviewed on a daily basis, and all alarms are addressed within, at most, 24 hours. Based on the record before us, and consistent with previous Commission and Bureau orders,<sup>30</sup> the Bureau finds that the hybrid CE Monitoring System includes self-diagnostic features sufficient to render quarterly inspections unnecessary.<sup>31</sup> We conclude, based on CE’s representations, that the combination of the Vanguard Monitoring System and CE’s NOCs create a safe and reliable monitoring system with tracking mechanisms that ensure proper functioning of the remote monitoring technology. Such advanced technology provides the benefits of more rapid response in case of a lighting failure. As a result, the combination of the Vanguard Monitoring System, a system already approved by the Commission, and CE’s own NOCs, when deployed in the manner described in this Order, justifies an exemption from the quarterly inspection requirement of section 17.47(b). Therefore,

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<sup>24</sup> See 47 CFR § 17.48(a). Effective December 2, 2021, the Federal Aviation Administration (FAA) changed the acronym NOTAM from Notice to Airmen to Notice to Air Missions. See U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Organization Policy Change JO 7930.2S, CHG 2 (December 2, 2021).

<sup>25</sup> *Supplement* at 3-4.

<sup>26</sup> 47 CFR § 17.47(c).

<sup>27</sup> See *ATC/GSI Order*, 22 FCC Rcd 9743 at 9748 (2007), para. 18.

<sup>28</sup> *Part 17 Order*, 29 FCC Rcd at 9801, para 34.

<sup>29</sup> See, e.g., *United States Cellular Corporation Request for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 30 FCC Rcd 5026 (WTB 2015) (*United States Cellular Order*); *Cellco Order*; *AEP Order*. See also *Part 17 Order*, 29 FCC Rcd at 9801, para 34.

<sup>30</sup> See *Optacite Order*; *In the Matter of Crown Castle USA Inc. Request for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 22 FCC Rcd 21881 (WTB 2007); *In the Matter of Request of Global Tower LLC for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 23 FCC Rcd 16531 (WTB 2008); *In the matter of TowerSentry LLC Request for Waiver of 47 C.F.R. § 17.47(b) and Joint Petition of Diamond Communications LLC and Diamond Towers LLC for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 24 FCC Rcd 10274 (WTB 2009); *Mobilitie Order*; *American Tower Corporation Request for Waiver of 47 CFR § 17.47*, Memorandum Opinion and Order, 28 FCC Rcd 294 (WTB 2013); *United States Cellular Order*; *Cellco Order*; *AEP Order*.

<sup>31</sup> 47 CFR § 17.47(c).

pursuant to section 17.47(c), CE is exempt from section 17.47(b) with regard to any of its towers monitored by the Vanguard Monitoring System in the manner described in this Order. This will enable CE to more efficiently carry out its responsibilities under part 17 of the Commission's rules.

#### **IV. ORDERING CLAUSE**

10. Pursuant to sections 4(i), 303(q), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(q), 303(r), and pursuant to sections 0.131, 0.331 and 17.47(c) of the Commission's Rules, 47 CFR §§ 0.131, 0.331, 17.47(c), the Request filed by Cooperative Energy IS GRANTED.

FEDERAL COMMUNICATIONS COMMISSION

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