

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Improving 911 Reliability	)	PS Docket No. 13-75
	)	
Reliability and Continuity of	)	PS Docket No. 11-60
Communications Networks, Including	)	
Broadband Technologies	)	
	)	

**REPLY COMMENTS OF VERIZON AND VERIZON WIRELESS**

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The comments in this proceeding make clear that 911 service providers are focused on ensuring the availability and reliability of their services and are actively engaged in applying the lessons learned from the Derecho.<sup>1</sup> Moreover, there is broad support in the record for a reasonable certification program based on a core set of 911 resiliency practices to be developed by the 911 service providers and other stakeholders. Of the various approaches suggested in the *Notice*,<sup>2</sup> a certification approach would be the most effective in improving resiliency because it would allow providers the necessary flexibility to adopt practices that make sense for their networks and the operations of their PSAP customers, as well as to take innovative approaches with their PSAP partners to counter new risks. As a result, the Commission should focus on such a certification approach, and reject calls for prescriptive mandates and audits that would be diversionary and counterproductive.

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<sup>1</sup> See, e.g., AT&T Comments at 7-9; Frontier Comments at 2-4; Verizon Comments at 3-7.

<sup>2</sup> *Improving 9-1-1 Reliability; Reliability and Continuity of Communications Networks, Including Broadband Technologies*, Notice of Proposed Rulemaking, 28 FCC Rcd 3414 (2013) (“*Notice*”).

Likewise, the Commission should stay focused in this rulemaking on the central issues raised in the *Notice* – i.e., those components of a 911 service provider’s network or PSAP notification practices that directly impact the provision of 911 services to PSAPs *and* that have experienced challenges during recent weather-related events. In particular, the Commission should not allow this proceeding to drift into peripheral issues like backup power for network elements outside of critical facilities serving PSAP operations, including on customer premises or in wireless networks, or vastly expanded PSAP and state commission notification requirements. Any expansive regulation in these areas as certain commenters propose is not only premature, but also without a basis.

## **DISCUSSION**

### **I. The Record Supports a Certification Process Based on a Core Set of 911 Resiliency Practices.**

Because the Commission aims to promote 911 service providers’ adoption of resiliency improvements and to obtain a nationwide view of the providers’ practices, the Commission should adopt an annual certification program as the *Notice* suggests. The Commission should collaborate with 911 service providers and other stakeholders to develop a core set of 911 resiliency practices that would form the basis for a provider’s certification. The comments confirm that such an approach would be more effective than imposing one-size fits-all prescriptive requirements on 911 service providers.

1. The Commission should leverage the expertise of 911 service providers to determine the appropriate core set of practices. As the comments establish, industry input into any set of 911 practices is essential because 911 service providers best know their networks and will have the best understanding of the potential costs and corresponding benefits of proposed measures. Fairfax County readily acknowledges this,

explaining that it “cannot specify required standards . . . but it supports an active effort to establish a realistic standard.”<sup>3</sup> Like Verizon, the Pennsylvania PUC proposes “an industry-government consultative process” to determine practices because such a process “minimizes cost, enhances reliability, preserves flexibility, and includes timely resolution of 911 problems.”<sup>4</sup> ATIS verifies that industry “would be very interested in participating in this process and, . . . it has a successful track record of working collaboratively with the FCC to address the significant challenges facing the industry and to clearly identify implementation options that are technically feasible and effective.”<sup>5</sup>

Indeed, the few commenters that proffered specific standards for the Commission to adopt proposed extreme standards that illustrate the necessity of 911 service provider input. For example, NENA proposes unrealistic and excessively long backup power standards. To put NENA’s proposal in perspective, while the Commission’s prior order would have required COs to have 24 hours of backup power,<sup>6</sup> NENA asserts that 911 service providers should have backup power for facilities that are somehow defined as “high-risk or high-impact” for a minimum of 120 hours (with a normal range of 168 hours) with multiple independent grid ties.<sup>7</sup> NENA’s proposal – which increases the Commission’s earlier discarded backup power duration requirement by at least *five* times – is unnecessary and would be infeasible in many cases.

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<sup>3</sup> Fairfax County Comments at 6.

<sup>4</sup> Pennsylvania Public Utility Commission (“Pennsylvania PUC”) Comments at 10; *see also* Edison Electric Institute (“EEI”) Comments at 8 (“FCC should promote industry engagement and collaboration in the substantive development of any such requirements.”).

<sup>5</sup> Alliance for Telecommunications Industry Solutions (“ATIS”) Comments at 9.

<sup>6</sup> *See Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Order, 22 FCC Rcd 10541, ¶ 77 (2007).

<sup>7</sup> *See* NENA Comments at 12.

As Verizon has explained, almost all of Verizon’s COs are engineered to have both generators with 72-hour fuel reserves and battery reserves.<sup>8</sup> The capacity of the COs’ on-site fuel tanks would effectively preclude any backup power increase beyond 72 hours. Replacing existing fuel tanks with substantially larger ones would be burdensome and would require various regulatory approvals in many locations.<sup>9</sup> Likewise, NENA’s suggestion that certain COs have multiple grid ties – i.e., a physically diverse electrical power supply – would require extensive and costly electrical work.

Moreover, the corresponding benefit to 911 service from requiring CO backup power for 120 (or 168) hours would be minimal because fuel can be replenished within 72 hours in the vast majority of circumstances. As the California PUC observes, “the costs to increase either fuel storage or battery capacity with commensurate environmental safeguards and hazard reduction protocols are far greater [in some circumstances] than the alternative approach of having an efficient fuel delivery schedule and associated contingency plans.”<sup>10</sup>

The record also reflects widespread support for flexibility. For example, the Virginia SCC recognizes that “it is unlikely that a set of regulations could be sufficiently detailed to address all the necessary operational parameters and situations.”<sup>11</sup> Similarly, the California PUC asserts that providers need flexibility “so that solutions adopted can

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<sup>8</sup> See Verizon Comments at 3.

<sup>9</sup> The California Public Utilities Commission (“California PUC”) relates that when it previously examined backup power, service providers explained that “increased numbers of batteries and larger fuel storage can trigger requirements to comply with state and federal EPA rules, local fire codes, state air quality regulations, hazardous materials loading rules, and building safety rules.” California PUC Comments at 13; *see also* ATIS Comments at 11 (listing site-specific issues, such as “space constraints, floor loading, heating, ventilation, and cooling, etc.”).

<sup>10</sup> California PUC Comments at 12.

<sup>11</sup> Virginia State Corporation Commission (“Virginia SCC”) Comments at 7.

take into account variances in state and local geography, population density, environmental laws, and zoning laws.”<sup>12</sup>

As Verizon and other commenters point out, non-mandated practices would be the most effective way to preserve flexibility.<sup>13</sup> Flexibility is necessary for 911 service providers to prepare for and quickly respond to disasters. It is particularly important given the variety of network configurations, assets, and established protective practices that exist today.

2. The record contains ample support for a periodic certification program for 911 service providers along the lines proposed in Verizon’s comments – i.e., an annual filing with the Commission of a certification and report describing how the provider is complying with each developed practice or alternative actions, if any, the provider is taking that would mitigate the relevant risk the practice is intended to address. As AT&T explains, “such a requirement would be an appropriate, incremental step to reassure the Commission that providers adhere to best practices to bolster network reliability and resiliency.”<sup>14</sup> In addition to Verizon, numerous commenters propose a certification modeled on the CPNI annual certification.<sup>15</sup>

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<sup>12</sup> California PUC Comments at 10; *see also* AT&T Comments at 17-18 (“Providers need the flexibility to tailor backup power plans based on an individualized assessment of the local needs and characteristics of a given central office.”).

<sup>13</sup> *See, e.g.*, Alaska Communications Systems Comments at 6-9; AT&T Comments at 10-23; Frontier Comments at 9; United States Telecom Association Comments at 5; Verizon Comments at 16-17.

<sup>14</sup> AT&T Comments at 14 (limited to 911 diversity); *see also* Frontier Comments at 6 (“[T]he certification process of compliance with best practices would promote the most efficient use of scarce resources.”).

<sup>15</sup> *See* AT&T Comments at 13-14; California PUC Comments at 4-5; Fairfax County Comments at 5-8; Pennsylvania PUC Comments at 12.

Consistent with the CPNI certification requirement, Verizon proposed that the certification be signed by an appropriate officer of the 911 service provider as this would demonstrate senior level engagement and support for the provider's 911 resiliency efforts.<sup>16</sup> Contrary to some suggestions, the certification need not be signed by a 911 service provider's CEO, CFO, or CTO to ensure accountability and to provide regulators with a contact person who can rapidly act.<sup>17</sup> An officer of the 911 service provider who has day-to-day oversight of the provider's 911 service would be far more meaningful as a signatory of the certification in ensuring accountability and providing an effective senior point of contact for regulators.

## **II. The Commission Should Reject Proposals To Broaden its Backup Power Inquiry Beyond COs.**

To be sure, the certification program proposed by Verizon would be a significant undertaking. CSRIC, ATIS, or a new collaborative group of industry stakeholders would first have to collectively determine a core set of practices. Individual providers, in turn, would need to take appropriate steps to implement a certification process incorporating the relevant employees and business groups within their own companies. In light of this burden, the Commission has appropriately limited the focus of this rulemaking to the specific areas directly related to 911 service that were identified by the Bureau in the Derecho Report and the Commission in the *Notice* as potentially needing improvement: CO backup power, diversity of monitoring and control links, circuit diversity, and PSAP communications.<sup>18</sup> The *Notice* makes clear that “*in this portion* of the docketed

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<sup>16</sup> See Verizon Comments at 14.

<sup>17</sup> See, e.g., Pennsylvania PUC Comments at 12.

<sup>18</sup> See FCC Pub. Safety & Homeland Sec. Bureau, *Impact of the June 2012 Derecho on Communications Networks and Services: Report and Recommendations*, (rel. Jan. 10,

Reliability and Continuity proceeding” the Commission is looking only at the reliability and resiliency “of the 9-1-1 system.” By its terms, the *Notice* does not intend to cover aspects of voice communications removed from 911 service, such as the resiliency of residential and other voice telephony services.<sup>19</sup> The Commission should therefore reject proposals that would significantly broaden its rulemaking into providers’ backup power practices beyond COs serving as 911 tandems for the routing and trunking of 911 calls to PSAPs.

Two commenters – NATOA and EEI – propose that the Commission address and/or adopt backup power requirements for network elements, including remote terminals<sup>20</sup> and “all sites and critical nodes,” which EEI describes expansively to include wireless facilities used *for utilities’ own communications*.<sup>21</sup> These issues are outside the scope of the *Notice*, and there is no evidence in the record that there are inadequate backup power resources in the additional areas identified by these commenters or that any alleged insufficiency has had a direct and detrimental impact on 911 service. The complex issues associated with applying practices for provisioning and monitoring backup power to these elements across dissimilar provider networks – which must take into account the criticality of the site, the equipment involved, access to generator or other backup commercial power, and environment (e.g., space, weight, ventilation, landlord concerns) – further militate against expanding the scope of this *Notice* to these facilities.

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2013), <http://www.fcc.gov/document/derecho-report-and-recommendations> (“*Derecho Report*”); *Notice*, ¶¶ 34-74.

<sup>19</sup> *Notice* ¶ 16 (emphasis added).

<sup>20</sup> See NATOA Comments at 6.

<sup>21</sup> See EEI Comments at 7.

Similarly, the Commission should not enlarge the instant rulemaking beyond 911 networks to encompass backup power in customer premises equipment (“CPE”) as proposed by the Pennsylvania PUC.<sup>22</sup> Although the Pennsylvania PUC speculates that residential customers “often lack the technological knowledge, sophistication, and skills” to address backup power,<sup>23</sup> no evidence exists in this record or in Verizon’s own experience that would support that assertion.

Moreover, any inquiry into backup power for CPE would need to address far-ranging issues, such as consumer disclosure and responsibility. In addition, any such inquiry would also need to consider the backup power for other equipment in the home environment, such as a PC, router, or cordless phone, and whether the consumer or the manufacturer of that equipment should be responsible for powering those devices when the consumer’s electricity goes out. Finally, consumers’ access to other modes of communication, such as cellphones, which today are nearly ubiquitous, and tablets, must be considered. Taken together, these issues go well beyond the scope of the Commission’s inquiry into 911 services and networks in the *Notice*.

### **III. The Commission Should Refrain from Expanding the Proposed PSAP Notification Rule.**

As discussed in Verizon’s comments, if the Commission decides to move forward with amending its PSAP notification rule, the proposed rule in the *Notice* requires only modest changes for clarification and flexibility.<sup>24</sup> Consistent with Verizon’s proposed modifications,<sup>25</sup> commenters agree that any new rule should not dictate two forms of

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<sup>22</sup> See Pennsylvania PUC Comments at 18-24.

<sup>23</sup> *Id.* at 19.

<sup>24</sup> See Verizon Comments at 20-24.

<sup>25</sup> See *id.* at 21-23.

communication (i.e., voice call and email) in all circumstances. Instead, as NENA asserts, PSAPs and 911 service providers should “have the flexibility to agree to other primary means of notification that might better meet 9-1-1 authorities’ requirements.”<sup>26</sup>

Two commenters seek profound changes to the PSAP notification rule that would significantly expand the notification requirements imposed on 911 service providers. The Commission should reject these broad and burdensome proposals.

1. The Pennsylvania PUC contends that “state commissions or other entities involved with 911 such as PEMA” should get a copy of or simultaneous access to “all filings made with the FCC or communicated to PSAPs.”<sup>27</sup>

Because an open Commission proceeding already addresses the specific issue of granting state commissions direct access to NORS, there is no need for the Commission to rehash the same arguments here. As previously stated, Verizon does *not* object to the Commission granting a state commission access to completed outage reports in NORS where the outage originated within the state’s geographic boundary if (i) the state commission makes a showing that it will provide at least the same level of confidentiality and protection as the Commission; (ii) the state commission restricts its use of the outage reports to promoting public health and safety; and (iii) any state outage reporting requirements are identical to the Commission’s.<sup>28</sup> But that issue is not before the Commission in this docket.

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<sup>26</sup> NENA Comments at 11; *see also* ATIS Comments at 12-13 (“Communication providers need flexibility to work with PSAPs to ensure efficient and timely communications occur in a manner that aligns with their preferences and needs.”).

<sup>27</sup> Pennsylvania PUC Comments at 17-18.

<sup>28</sup> *See* Verizon Reply Comments, *Petition of California Public Utilities Commission and The People of the State of California for Rulemaking On States’ Access to the*

More significantly, the Pennsylvania PUC appears to suggest that the Commission require *all* communications between the 911 service provider and the PSAP to be simultaneously provided to the PUC by the service provider. That would impose an unreasonable burden on 911 service providers when their focus is and should be on restoration and communication with affected PSAPs.

Adding another reporting obligation beyond contacting PSAPs could delay providers' restoration efforts. When Verizon initiates a communication to PSAPs when it becomes aware of a potential issue, Verizon is often still trying to obtain information about the event from various sources, including the PSAP that is directly affected by the incident, and attempting to remediate the issue as soon as possible. Introducing a state commission reporting requirement of all PSAP communications at that critical juncture could distract providers from their remediation and PSAP communication efforts. After providing such a communication to state commissions, 911 service providers would then be subject to follow-up questions and other requests for information that would continue to divert attention from restoration and contact with the entity that matters the most: the PSAP.

What's more, such a requirement could render every PSAP communication about a network event – no matter how insignificant – reportable to the state commission. The Commission recognizes that not all network alarms are noteworthy and that providers should not be burdened with completing NORS reports for less significant events. As such, the Commission developed specific thresholds before an outage – even a 911

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*Network Outage Reporting System (“NORS”) and a Ruling Granting California Access to NORS*, RM-11588 & ET Docket No. 04-35, at 1 (Mar. 19, 2010).

outage – is reportable, including a minimum duration of 30 minutes.<sup>29</sup> Nonetheless, Verizon is in regular contact with its PSAP customers concerning pertinent network events, including those that might not meet the Commission’s thresholds. It follows that if the Pennsylvania’s PUC’s proposal were adopted, there would effectively be *no* thresholds for reporting events to state commissions. Not only would this burden 911 service providers by requiring them to report less significant events to state commissions, but it could also chill beneficial communications between 911 service providers and their PSAP customers when a chief goal of this proceeding is to encourage such communications.

Finally, the Pennsylvania PUC does not explain how it would protect the confidentiality of such notifications.<sup>30</sup> As the Commission has recognized in the context of NORS reports, such notices are likely to contain sensitive information that should not be released to the public.<sup>31</sup> Confidentiality should be a threshold issue – not one for a later discussion.

2. The Commission should also reject APCO’s proposal to modify and expand the PSAP notification requirement. Specifically, APCO would place an upper bound for the timing of the notification – 15 minutes – while at the same time dramatically expanding the notification requirements to include instances when there are outages to (i) a PSAP’s administrative lines; (ii) customers with NPA-NXX codes within the PSAP’s jurisdiction; and (iii) SS7 where used for transport of wireless traffic and SMS.

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<sup>29</sup> See generally 47 CFR §§ 4.5, 4.9.

<sup>30</sup> Instead, the Pennsylvania PUC would defer the discussion of this important issue. See Pennsylvania PUC Comments at 18.

<sup>31</sup> 47 CFR § 4.2.

The Commission should not include a specific timeframe in its PSAP notification rule. The term “immediately” is understood, and 911 service providers did not request clarification of that term.<sup>32</sup> APCO provides no evidence or support for its assertion that the term “could be open to disputed interpretation.”<sup>33</sup> Nor does APCO provide any basis for its supposition that 15 minutes should be the upper bound. And having only an “immediately” standard – with no precise time – would in no way jeopardize the Commission’s ability to enforce this requirement when appropriate. Accordingly, the Commission should reject APCO’s proposed modification.

Likewise, the Commission should not require 911 service providers to notify PSAPs of additional events. As with the backup power suggestions that go far afield discussed above, APCO’s proposed new categories for PSAP notification are unrelated to the improvements to 911 service suggested by the Bureau in the Derecho Report. Nor does APCO point to any evidence that PSAPs have lacked necessary information concerning such events. Because APCO’s categories are only indirectly related to 911, they are beyond the scope of this rulemaking and should not be addressed here.

In any event, Verizon already attempts to inform PSAPs when Verizon learns that a significant number of customers in the PSAPs’ serving area are out of service for a material length of time. By design, network alarms for certain non-PSAP impacting events may not be immediately available to Verizon’s PSAP notification center. This design prevents Verizon’s PSAP notification center from being inundated with events

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<sup>32</sup> See, e.g., Verizon Comments at 20 (“Verizon agrees that PSAPs should be contacted ‘immediately’ to start a dialogue about the event, even if the facts surrounding the event are unclear.”).

<sup>33</sup> APCO Comments at 3. The City of Alexandria makes similar a claim, but suggests no time bound. See James L. Banks, City of Alexandria Comments at 6.

that may not impact PSAP customers, that are remediated quickly, or that are otherwise insignificant.

In addition, Verizon does not proactively monitor a PSAP's administrative lines. To the extent that a PSAP desires such monitoring (which could require periodic, service-disrupting testing), Verizon is always willing to discuss with individual PSAPs additional services along those lines. Thus, a Commission requirement to achieve the same end is unnecessary, while not addressing any of the issues set forth in the *Notice*.

### CONCLUSION

Verizon is willing to work with the Commission and other stakeholders to devise a core set of practices that would form the basis for an annual certification to the Commission. However, the Commission should not permit its rulemaking proceeding to stray beyond resiliency and notification practices that directly impact 911.

Respectfully submitted,

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