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STATUS OF THE PUBLIC SAFETY BROADBAND

NETWORK

TUESDAY, FEBRUARY 2, 2016

House of Representatives

Subcommittee on Communications and

Technology

Committee on Energy and Commerce

Washington, D.C.

The subcommittee met, pursuant to call, at 10:15 a.m., in Room 2318 Rayburn House Office Building, Hon. Greg Walden [chairman of the subcommittee] presiding.

Members present: Representatives Walden, Latta, Barton, Shimkus, Blackburn, Lance, Guthrie, Olson, Kinzinger, Bilirakis, Johnson, Long, Elmers, Collins, Cramer, Eshoo, Doyle, Welch, Yarmuth, Clarke, DeGette, Matsui, McNerney, and Pallone (ex officio).

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Staff present: Ray Baum, Senior Policy Advisor for Communications and Technology; Rebecca Card, Assistant Press Secretary; Andy Duberstein, Deputy Press Secretary; Gene Fullano, Detailee, Telecom; David Redl, Counsel, Telecom; Charlotte Savercool, Professional Staff, Communications and Technology; Gregory Watson, Legislative Clerk, Communications and Technology; Christine Brennan, Minority Press Secretary; Jeff Carroll, Minority Staff Director; David Goldman, Minority Chief Counsel, Communications and Technology; Jerry Leverich, Minority Counsel; Lori Maarbjerg, Minority FCC Detailee; and Ryan Skukowski, Minority Policy Analyst.

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1 Mr. Walden. We will call to order the Subcommittee on
2 Communications and Technology for our hearing on Status of the
3 Public Safety Broadband Network.

4 This morning we convene to examine the progress in the
5 deployment of the nationwide Public Safety Broadband Network, a
6 mandate given to FirstNet by the Congress in the Middle Class Tax
7 Relief and Job Creation Act of 2012 and for which FirstNet was
8 created.

9 With the January 13th release of the request for proposal
10 to award a contract for the deployment and operation of the
11 network, FirstNet has achieved its most crucial milestone to date
12 and within the time frame promised by Chairman Sue Swenson. I
13 commend Ms. Swenson, the FirstNet board, and the staff of FirstNet
14 for reaching this milestone, especially given the time lost in
15 FirstNet's early days when controversy hobbled its efforts.

16 If FirstNet is able to stay the course to the timeline it
17 has established for the RFP process, proposals will be due just
18 one year after the United States Government Accountability Office
19 released its report on FirstNet's progress in establishing the
20 network. In that GAO report they observed that FirstNet faces
21 a multitude of risks, significant challenges and difficult
22 decisions in meeting its statutory responsibilities, including
23 how to become a self-funding entity.

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24 Today's discussion with FirstNet will give us the chance to
25 gain a better understanding of the RFP, what it means for our
26 nation's first responders, and FirstNet's thoughts on how it
27 envisions its future. To that end, we have begun to hear concerns
28 from parties that are candidates to build FirstNet's network.

29 Some have expressed concern with FirstNet's attempts to
30 establish a private-public partnership for the deployment and
31 operation of the network through a single contract that covers
32 all the states and territories rather than a "network of networks"
33 approach. FirstNet is asking one company to take on the
34 obligations nationwide. This approach could make it tougher for
35 small and regional companies to participate in FirstNet without
36 partnering with one of the nationwide carriers.

37 Others are concerned that FirstNet's RFP asks the winning
38 bidder to take on the obligation to serve the needs of public
39 safety, but does not provide an economic incentive to do so. In
40 broad strokes, the RFP takes the approach that rather than
41 FirstNet paying for the contractor's services, wireless providers
42 will come to play in exchange for access to FirstNet's spectrum
43 and the ability to charge public safety users subscription fees.

44 The RFP also envisions grants of up to \$6.5 billion in funding
45 to support the build-out and operation of the network, but
46 requires repayment of nearly 85 percent of that money in the form

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47 of sustainability payments to FirstNet. In short, it appears
48 FirstNet is asking a wireless provider to take on the obligation
49 of building a network to public safety specifications in exchange
50 for a monopoly on public safety users and a zero interest loan.

51 Others still have expressed concerns that this seems to be
52 a rehash of the failed approach of the FCC's 2007 700 megahertz
53 D block auction. Then, the FCC asked the wireless industry to
54 pay \$2 billion for a nationwide license that would come with an
55 obligation to negotiate with, and serve the needs of, public
56 safety. Even with the prospect of holding the D block license
57 going forward as enticement, the wireless industry was not willing
58 to put up the capital needed or build the network public safety
59 was demanding.

60 Nine years later, FirstNet is asking wireless providers to
61 take similar terms without the enticement of a license. I hope
62 that these concerns are misplaced, but there is a small but growing
63 chorus asking why FirstNet believes that this time it will be
64 different.

65 The legislation that created FirstNet was not my preferred
66 approach. I favored construction from the bottom up, not the top
67 down. And while I take some comfort that FirstNet has chosen a
68 public-private partnership as the vehicle to deploy the network,
69 the concerns we are hearing are valid. But for better or worse,

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70 the RFP is in the field. The die is cast. Whether a business
71 case can be made for what FirstNet is asking will be better
72 understood in April when responses are due and proposals are
73 submitted.

74 So today is an opportunity for FirstNet to answer some of
75 these questions, maybe assuage some of the fears, and to inform
76 the committee of what the RFP means for the deployment of a public
77 safety broadband network that reaches all corners of the United
78 States, urban and rural.

79 Finally, we will also hear from the FCC. The FCC plays a
80 critical role in the state "opt out" provisions of the statute
81 as it is charged with reviewing and approving a state's plan to
82 deploy its own radio network. With the RFP issued and an award
83 in the fourth quarter of 2016 anticipated, states will need to
84 understand the process in order to make an informed decision on
85 whether to accept FirstNet's plan or deploy on their own.

86 As delay from the commission could frustrate deliberations
87 of states deciding whether to opt out, I hope that when we gavel
88 out today we will do so with an understanding of when the FCC will
89 satisfy this statutory duty. I now recognize the vice chair of
90 the subcommittee.

91 Mr. Latta. Well, thank you, Mr. Chairman, and thank you for
92 our witnesses for being here. Good to see you again.

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93 In 2012, Congress recognized the importance of public safety
94 and emergency communications and established a nationwide public
95 safety network to meet the needs of all Americans and our first
96 responders. Since that time, this committee has long agreed that
97 a reliable network is essential for first responders to facilitate
98 their communication needs and support their everyday missions.

99 Developing a nationwide interoperable network is a
100 significant task, but if properly established would be vital to
101 protecting the lives of the American people. Therefore, it is
102 imperative that the implementation of FirstNet is successful. I
103 am encouraged by the progress FirstNet has made since its
104 creation, however, there are still many unanswered questions
105 about the future of this network ranging from the inclusion of
106 rural providers to the FCC's review process of the states' plan
107 to build their own radio access networks.

108 I hope today's hearing will be an opportunity to learn more
109 about current developments and the next steps for FirstNet. I
110 look forward to the witnesses' testimony today, Mr. Chairman, and
111 I yield back.

112 Mr. Walden. The gentleman yields back. The chair
113 recognizes the gentlelady from California, the ranking member of
114 the subcommittee, Ms. Eshoo.

115 Ms. Eshoo. Thank you, Mr. Chairman. Thank you for

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116 convening this important hearing. It is an important time in the
117 life of FirstNet and we welcome the witnesses and eager to hear
118 from you.

119 A few weeks ago I joined with the sheriff of Santa Cruz County
120 at home to unveil the 21st Century Policing initiative which is
121 designed to improve the public trust and safety in the communities
122 that they serve. It is the first law enforcement agency in
123 California to adopt the White House initiative, which I think
124 really makes it a stand-out agency. It was a forward-looking
125 announcement of renewed commitment to stronger police-community
126 relations.

127 And essential to the effort, the reason I raise it, essential
128 to the effort is providing law enforcement and public safety
129 officials with the tools and the resources they need to do their
130 job. And of course this includes the deployment of the nationwide
131 interoperable communications network for first responders, or
132 FirstNet. So I know that the entire sheriff's department was
133 eager to know where we are on our work, and they want to see it
134 fully implemented and operational.

135 So where do we stand? And I think that that is what we want
136 to examine today. In California, there are more than 2,000 public
137 safety agencies and over 200,000 first responders. It is no
138 wonder we are called the nation state. While FirstNet is a

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139 nationwide effort, its success really depends on local
140 consultation with communities and, I think, the states, and I want
141 to examine that in my questioning. And so I think the
142 success really is going to depend on the consultation that takes
143 place with both, and I know that over the course of nearly three
144 years that FirstNet has traveled the country, met with public
145 safety leaders, tribes, federal agencies and the industry, last
146 month was really was the culmination of the investment in that
147 time where the RFP established a framework and was put out.

148 Now ultimately we all want to see the creation of a robust
149 and reliable network that is going to eliminate the tragic
150 communication failures on 9/11, but I think that success is also
151 going to be measured by whether we integrate the network with NG911
152 where we ensure device competition and utilize strong security
153 measures.

154 In 2013, California received 15.3 million calls to 911, 15.3
155 million calls, and 9.5 million were wireless. These calls were
156 answered obviously by dedicated professionals located in 450
157 public safety answering points, the PSAPs across the state. So
158 as we move to an NG911 environment where call takers can receive
159 text messages, photos and videos, it makes sense that this
160 information can be seamlessly transmitted to the first responders
161 headed to an emergency situation. That is all part of this

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network. It has to be.

I have been a long time advocate for greater device competition. Now late last year I wrote to the FBI urging the agency to ensure that they engage in a forward-looking procurement of land mobile radios that does not restrict competition to brand name, proprietary features and standards that can only be met by one vendor. This is all in the interest of the taxpayer.

And we need to ensure that first responders are equipped with state-of-the-art radios, and I think that FirstNet can learn from the FBI's failed acquisition of the LMR which was eventually struck down by the GAO last October, so there is a lot of there there to this.

Finally, in order to prevent the breach of sensitive FirstNet data cybersecurity has to be a core focus, so I hope that you will address that issue in your testimony. The continuation of the unraveling of the OPM and the IRS and other agencies that have the massive security breaches should be instructive to FirstNet, because you are going to have to utilize the most innovative security technologies available. And I think that in doing so it will not only lessen the chance of a widespread breach and prevent disruption, but there is a word that is so operational in this and that is "confidence," confidence in the system by all the users.

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185 So I thank Mr. Kennedy and Mr. Furth for being here today.
186 We look forward to asking you questions and look forward to hearing
187 your testimony, and I yield back, Mr. Chairman.

188 Mr. Walden. The gentlelady yields back. The chair
189 recognizes the gentlelady from Tennessee for opening comments.

190 Mrs. Blackburn. Thank you, Mr. Chairman. And I appreciate
191 each of you for taking your time for preparing for being here and
192 to work with us through this. As you know, it is not the first
193 hearing that we have had and I am certain it will not be the last
194 one that we are having. We all agree that we do need a national
195 public safety network and we know that it is something that we
196 still have some outstanding questions, some issues and some lack
197 of agreement on.

198 First of all, as I mentioned last June, and I am going to
199 come back to this issue, looking at the redundancies and the
200 ability for you to protect yourself from breaches and hackings.
201 And we know that that exists. I think the possible hacking of
202 the NASA network and what we have learned from that is of
203 tremendous concern to us, and thereby it is of concern for what
204 you are doing.

205 When you talk about an enterprise system you have one set
206 of expectations. When you talk about a closed system you are
207 going to have an additional set of expectations and encryptions,

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208 and so let us delve into that a little bit as we approach this
209 issue. Second thing, and the chairman has mentioned this, the
210 opt-out process and the ability for states to control some of that.
211 I think we have got to go in and look at that just a little bit.

212 So we will discuss those further, and Mr. Chairman, I will
213 yield the balance of my time back to you so we can move forward
214 to their testimony.

215 Mr. Walden. Okay. The gentlelady yields back the balance
216 of her time. We recognize the ranking member of the full
217 committee now, the gentleman from New Jersey, Mr. Pallone.

218 Mr. Pallone. Thank you, Mr. Chairman and our ranking
219 member, for holding this hearing, and thanks to Mr. Furth for being
220 here, and welcome back, Mr. Kennedy.

221 It was not many months ago that FirstNet was here to testify,
222 but at the pace that FirstNet is moving a few months can be a
223 lifetime. Since our last hearing in June, FirstNet has released
224 its much anticipated request for proposal, and while government
225 procurements do not usually keep people sitting on the edge of
226 their seats this one is a big deal because it contains a road map
227 to the future of communications for first responders.

228 Back in New Jersey we know from experience how important it
229 is that we complete this road map quickly. After we were struck
230 by Hurricane Sandy, I heard from first responders about their

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231 difficulty communicating. I heard time and again how their
232 radios were not interoperable, public safety officials from
233 different communities could not coordinate because their radios
234 could not talk to each other, and first responders could not call
235 for help when they needed it. So this past September I hosted
236 a forum in my congressional district with local officials and
237 industry leaders to see the progress that has been made, and Mr.
238 Kennedy joined us and provided valuable feedback. Thank you,
239 T.J.

240 Together we took a critical look at what worked and what did
241 not work during the storm. We learned a lot. I incorporated many
242 of these lessons into the Sandy Act that I recently introduced,
243 and we also heard once again that interoperability was a big
244 challenge.

245 But this is why FirstNet is so important. FirstNet will help
246 ensure that first responders across the country have the best,
247 the most rugged communications equipment, and it will also make
248 sure first responders can hear each other when they call for help.

249 In New Jersey we are already seeing the fruits of this labor.
250 We are the home to one of FirstNet's five early builder projects,
251 ours is called JerseyNet, and these projects are already showing
252 how this network can benefit first responders. I had the
253 opportunity to see this equipment for myself at the forum and it

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254 is impressive and it will save lives.

255 I am happy to say that JerseyNet was up and running when we
256 were hit by the recent snowstorm that crippled the east coast last
257 month. As large and devastating storms become more frequent
258 because of climate change, we need FirstNet at full force across
259 the country as soon as possible.

260 So thanks again to our witnesses, and I yield the balance
261 of my time to Mr. Doyle.

262 Mr. Doyle. I want to thank Mr. Pallone for yielding to me,
263 and thank you, Mr. Chairman, for holding this important hearing.
264 I am glad that we are continuing our oversight of FirstNet. This
265 year marks the 15th anniversary of the attacks on 9/11, and that
266 terrible day is a constant reminder of why we need to make sure
267 that FirstNet is successful.

268 I am very disappointed that it has taken this long for us
269 to address our first responders' pressing need for upgraded and
270 interoperable communications system. FirstNet will play an
271 integral role in bringing our first responders into the
272 twenty-first century, giving them access to high speed data, apps
273 and a competitive market for devices. Everywhere in our
274 economy we see how these advances have been leveraged for
275 unprecedented improvements in coordination and communication.
276 From Uber and Lyft to Waze and Twitter, smartphones are enabling

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277 unparalleled innovation at an unparalleled pace. My hope is that
278 FirstNet will bring these same benefits to first responders and
279 that the results will be a safer country for both our citizens
280 and first responders alike. Thank you, and I yield back.

281 Mr. Walden. The gentlemen yields back the balance of his
282 time, and now we will go to our distinguished panel of witnesses.
283 We appreciate you both being here today and the good work that
284 you are doing out there for our first responders and trying to
285 make all this work.

286 So we will start with Mr. T.J. Kennedy who is the president
287 of First Responder Network Authority. Good morning. Welcome
288 back and we are glad to have you here.

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STATEMENTS OF T.J. KENNEDY, PRESIDENT, FIRST RESPONDER NETWORK
AUTHORITY; AND, DAVID FURTH, DEPUTY CHIEF, PUBLIC SAFETY AND
HOMELAND SECURITY BUREAU, FEDERAL COMMUNICATIONS COMMISSION

STATEMENT OF T.J. KENNEDY

Mr. Kennedy. Good morning. Thank you. Chairman Walden,
Ranking Member Eshoo, and members of the subcommittee, thank you
for inviting me to testify on behalf of the First Responder Network
Authority. I welcome the opportunity to brief you on FirstNet's
ongoing progress in facilitating the deployment of the first
interoperable nationwide public safety broadband network that
will serve our nation's first responders. It is also a pleasure
to appear here today with Deputy Director of the FCC's Public
Safety and Homeland Security Bureau, Mr. David Furth.

FirstNet continues to take the responsibility of creating
the nationwide public safety broadband network very seriously.
The FirstNet board and executive management team are proud to be
leading such an experienced, diverse and hardworking team that
understands that when it comes to public safety failure is not
an option. They are dedicated to delivering a network that our
first responders will depend on into the future.

We have learned as we have grown, and akin to every start-up
organization we have developed structure and procedures to

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312 improve the way that we do business. As mentioned the last time
313 I was before this committee, we continue to do what we said we
314 would do and remain on track in meeting our timelines. The most
315 tangible example of this is the recent release of our objectives
316 based RFP that ultimately will result in the selection of a partner
317 or partners which will actually deploy and operate the nationwide
318 public safety broadband network.

319 The release of this RFP is the culmination of years of hard
320 work comprising tens of thousands of working hours and more than
321 a few all-nighters. It is the result of numerous RFIs, public
322 notices on 64 different topics, a special notice in draft RFP
323 documents, responding to over 650 questions from industry related
324 to those documents, two different industry days, 55 state and
325 territorial consultations, hundreds and hundreds of outreach
326 events, conferences, meetings and public safety data input that
327 came in from more than 15,700 public safety entities representing
328 around 1.7 million public safety individuals.

329 Nowhere else in government has there been the level of
330 interaction and coordination between and among local, state,
331 tribal, federal and industry stakeholders to deploy such a
332 network. This network has not yet been deployed not because of
333 any lack of desire or need, but because it is extremely complex.

334 Well, today I sit before you feeling optimistic that we are

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on the cusp of a successful public-private partnership to deploy a truly interoperable broadband communications network for public safety, informed by public safety and our other state, local and tribal and federal stakeholders.

This input from public safety across the country is an incredibly important effort and we have been able to draw from it and ultimately use it to develop performance based public safety-centric RFP. After all, this is public safety's network. Throughout the RFP process, we will select a private sector partner and together establish the nationwide network. Additionally, we will develop an open and competitive marketplace where public safety objectives will drive competition for industry to deliver equipment that public safety needs to fully utilize and leverage all the great innovation that the network will provide.

FirstNet is dedicated to open standards for the network for applications and even the devices that run on it. Application of open standards policies ensures the widest opportunity for companies of all sizes to bring innovation and to bring new solutions and products to the market for use on the nationwide public safety broadband network.

Through teaming and partnership opportunities, we believe that industry will be able to truly develop an innovative network

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that will not only be deployed in urban areas, but also available in rural America which is critical as it makes up the majority of land mass in the United States. We believe that rural telecommunications and infrastructure providers will be a key component of the network in rural America, which is why we made teaming with such providers an evaluation factor in the RFP.

FirstNet understands the critical importance of rural coverage, and we believe the significant effort that FirstNet has undertaken to engage and encourage teaming and foster inclusion of these important entities can ensure the widest possible geographic coverage for the network overall.

We expect our efforts in the RFP to achieve a win-win-win for public safety for states and for industry, and will create a viable public-private partnership that will provide all of us with the best opportunity to move forward quickly and do something that many people have felt was just too hard and complicated to achieve.

The release of this RFP along with the substantial consultation efforts across the nation are significant accomplishments, but we have an enormous amount of work ahead of us in both of our core areas of focus. The first being to execute and complete the procurement process, the second being our ongoing important consultation with public safety across the country.

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Mr. Chairman, while this is not an easy task, I and our team are truly dedicated to the mission that Congress has given FirstNet on behalf of public safety, and I am honestly excited to come to work every morning to work on this amazing mission. I am confident reporting to you that our board of directors and the rest of the FirstNet staff are equally passionate about deploying this network for public safety. FirstNet is very fortunate to have attracted a talented group, and I am honored to be a part of this organization as we work towards that successful deployment of the FirstNet network. I applaud the leadership and guidance of the FirstNet board. Sue Swenson, our board chair, and the entire board have worked tirelessly to make sure that we ensure that public safety is the key focus of everything we do each day. Thank you very much.

[The statement of Mr. Kennedy follows:]

*****INSERT*****

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398 Mr. Walden. Thank you, Mr. Kennedy. We appreciate your
399 good work and your testimony this morning.

400 We now go to Mr. David Furth, the deputy chief, Public Safety
401 and Homeland Security Bureau, Federal Communications Commission.

402 Good morning and welcome. We look forward to your comments,
403 sir. Is that on? Yes. It is push-to-talk technology.

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STATEMENT OF DAVID FURTH

Mr. Furth. Oh, yes. We are going to move past that sometime. Good morning, Chairman Walden, Ranking Member Eshoo and members of the subcommittee. Thank you for the opportunity to appear before you today to discuss the FCC's role in supporting FirstNet.

Let me emphasize at the outset that the FCC is fully committed to the success of FirstNet's mission. My testimony today will focus on our actions to support FirstNet and to implement the tasks that the act has assigned to the Commission. Since the act's passage, we have taken significant and timely steps in this regard and have met each of the act's deadlines to date.

For example, one of the FCC's first tasks was to establish the Technical Advisory Board for First Responder Interoperability, or Interoperability Board. The Commission established the board as directed, reviewed and approved the board's recommendations and provided those recommendations to FirstNet in 2012. The Commission also took prompt action in 2012 as directed by the act to designate 22 megahertz of spectrum in the 700 megahertz band for FirstNet's use and issued FirstNet's spectrum license.

Beyond these tasks, the Commission as worked to meet its

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statutory obligation to take all actions necessary to facilitate FirstNet's spectrum use. In 2013, the Commission adopted a Report and Order establishing basic technical rules for the FirstNet spectrum, providing regulatory certainty, and enabling prompt certification of equipment for the band.

A current example of our work to facilitate FirstNet's spectrum use concerns the need to relocate a limited number of public safety narrowband incumbents that have been operating in FirstNet's portion of the band since before the Commission reorganized the spectrum in 2007. In October 2015, FirstNet informed the Commission that it intends to provide funding later this year to relocate these incumbents and requested that we condition the incumbent licenses to require their relocation from the FirstNet spectrum by mid-2017.

We have sought public comment on this proposal and are currently considering those comments. We recognize that a prompt resolution of this issue will promote certainty for all interested parties.

Another important responsibility that the Act assigns to the Commission is the initial review of state opt-out requests. Section 6302(e) of the act -- and let me pause here. My written testimony inadvertently had a typo. It should read 6302(e) not 6502(e). Section 6302(e) of the act provides that upon

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completion by FirstNet of the RFP process, FirstNet shall provide each state governor with a proposed plan for build-out of the radio access network, or RAN, in that state. Within 90 days of receiving FirstNet's proposed state plan, each governor must elect whether to accept the FirstNet proposal or to opt out.

A state that opts out will then have 180 days to develop an alternative plan and submit it to the Commission. For any opt-out state, the act directs the Commission to apply a two-prong test in determining whether to approve or disapprove the alternative state plan. The act specifies that an alternative state plan must demonstrate, one, compliance with the minimum technical interoperability requirements developed by the Interoperability Board, and two, interoperability with the FirstNet network.

We recognize the need to provide states and FirstNet with clear and timely guidance on the process that the Commission will use to receive, review and approve or disapprove alternative state plans as required by the act. Our goal is to have the details of this process finalized and in place in advance of the date that FirstNet delivers its proposed state plans to each of the state governors, which FirstNet estimates will occur in the second quarter of 2017. To that end and consistent with FirstNet's anticipated timeline, we intend to seek public comment in the near term on how to structure the process to ensure that the Commission

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473 fully carries out its statutory obligation. Beyond these
474 specific examples we have been and will continue to be in regular
475 contact with our FirstNet counterparts to consult and coordinate
476 on issues as needed.

477 We have also been working with a number of stakeholders
478 including FirstNet to help transition the nation's 911 call center
479 to Next Generation 911, so that NG911 and FirstNet can complement
480 one another as integrated components of an end-to-end public
481 safety broadband ecosystem. While this transition is still in
482 its early stages, planning from the start is critical to achieving
483 these synergies and benefits.

484 In conclusion, we are committed to working with FirstNet as
485 well as with our other federal, state, local and tribal partners
486 to achieve Congress's vision for a nationwide public safety
487 broadband network. Thank you for your consideration and I look
488 forward to any questions you may have.

489 [The statement of Mr. Furth follows:]

490
491 *****INSERT*****

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492 Mr. Walden. Thank you very much, Mr. Furth. We appreciate
493 the FCC's role in all of this as well.

494 Mr. Kennedy, I will start off with the questions. The states
495 are permitted to opt out and build their own radio access networks.
496 Could you just very briefly explain how the statute treats revenue
497 generated by an opt-out state on the state opt-out network?

498 Mr. Kennedy. When it comes to state opt-out networks, they
499 have the ability to leverage the spectrum as part of the covered
500 leasing agreement that was laid out in the act itself. And for
501 each state, what they have the ability to do is to make sure that
502 they can cover the cost of the radio access network as per the
503 state plan.

504 As part of our legal interpretations leading up to the RFP
505 itself, we tried to make sure we added clarity to this. And one
506 of the things that we have laid out is that there is additional
507 revenue above and beyond what it costs to deploy the state plan
508 in that state that will have to come back into the network. It
509 will not be able to be kept in the state beyond what is required
510 to deploy the radio access network.

511 Mr. Walden. All right. One of the most critical
512 requirements of FirstNet is that it is nationwide in scope. My
513 district is extremely rural. How does the RFP address the
514 statutory requirement that the network cover rural America, and

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515 how do you envision the service being provided in the rural areas?

516 Mr. Kennedy. So a couple of things that we did on rural is
517 we wanted to ensure that rural is part of each phase of build-out
518 for the network. One of the things we heard during consultation
519 is that in rural areas a lot of times they are left until the very
520 end.

521 Mr. Walden. Right.

522 Mr. Kennedy. So as part of that we have put out in our draft
523 RFP and in our final RFP that we expect rural milestones to be
524 met at each phase of build-out. Because of the great feedback
525 we received we actually increased that, and so actually by the
526 end of phase 3 we are looking for 80 percent of those milestones
527 to actually be met in rural America. So we believe we have taken
528 that input from states and really tried to leverage the fact that
529 we want that rural build-out during the entire build-out of the
530 network.

531 Mr. Walden. All right. And central to the value
532 proposition underlying your proposal is the ability of the
533 contractor to monetize excess network capacity. I recall during
534 the debate in the subcommittee over reallocation of the D Block
535 that public safety's position at that time was that it needed all
536 20 megahertz for public safety services. Despite the
537 growth of the use of high bandwidth services by public safety,

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538 how do you conclude that there is so much excess capacity available
539 now that it will generate sufficient revenue to entice wireless
540 providers to build your network?

541 Mr. Furth. Twenty megahertz of a 700 megahertz spectrum is
542 an extremely large swath and as you well know is quite valuable
543 in the wireless industry here today. Just like Congressman Doyle
544 mentioned during his opening statement, during big emergencies
545 like 9/11, certainly leveraging all 20 megahertz of that spectrum
546 to be able to handle all the police officers, firefighters,
547 paramedics and the EMTs that are responding to a massive incident
548 could certainly leverage every single bit of that.

549 But in most areas we really want to make sure that also we
550 have a network that is built to the coverage and capacity to handle
551 those huge emergencies and to do that that network has to be built
552 to a significant size. As part of that the ongoing costs of
553 operating that larger network are going to be more expensive, but
554 we do believe that there will be a large swath of that spectrum
555 available in the excess capacity on that radiating network to
556 actually generate significant cash to both deploy and operate the
557 network for public safety in a cost effective manner.

558 Mr. Walden. Now the licenses have to be reauthorized every
559 ten years or you have to come back, but your RFP calls for the
560 contractors to put out a 25-year plan. Can you tell me how those

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561 two interact?

562 Mr. Kennedy. Sure. As you well know in understanding the
563 way the FCC works, every ten years those licenses have a certain
564 number of rules to really be reallocated and re-upped every ten
565 years. We believe that a successful offerer who deploys on the
566 schedule that we laid forward will certainly be meeting those
567 particular requirements of the FCC for future renewals.

568 Also on the 25-year time frame, we really wanted to make sure
569 that we had a return on investment and certainty for the offerer.
570 If we look at the wireless industry over the last 25 years, it
571 has gone from 1G to 4G LTE where we are today and it is really
572 the overall history of wireless in America. So the next 25 years
573 will bring a lot of innovation and a lot of changes, but we also
574 wanted to ensure that public safety has this network for the long
575 haul.

576 Mr. Walden. In one of our first oversight hearings, a
577 witness from the Commonwealth of Virginia discussed the budgetary
578 challenges faced by state public safety entities across the U.S.
579 He pointed out that because of these constraints only a subset
580 of first responders currently enjoy cell service, and noted that
581 if FirstNet's vision was premised on all first responders in the
582 state having service there simply isn't enough funding to achieve
583 this level of penetration. I would think this fiscal challenge

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584 is especially problematic with volunteer firefighting services
585 which are particularly prevalent in rural areas.

586 Is FirstNet envisioning volunteer firefighters nationwide
587 using FirstNet, and what level of penetration do you anticipate
588 and how does that factor into your economic analysis?

589 Mr. Kennedy. We absolutely believe that volunteer
590 firefighters, and for that matter volunteer EMS and other public
591 safety professionals, will be on the network. We believe that
592 they are excited to be able to leverage it going forward. Many
593 of them today carry personal cell phones and other devices, but
594 don't have the ability to communicate with other public safety
595 professionals. We have ensured every step of the way that
596 FirstNet has built into our network policies and procedures so
597 far that volunteers will always have access and have the same kind
598 of access as their professional brother in the public safety.

599 Mr. Walden. Yes, I think their issue is just affordability
600 of what that will be, and it is an unknown right now, right?

601 Mr. Kennedy. It is an unknown, but we also think it will
602 be very competitive with the commercial services that are out
603 there today and that we think that public safety having the
604 volunteer ability to get lower priced devices will also be
605 something that will allow them to get access to it.

606 Mr. Walden. Thank you. I turn now to the gentlelady from

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607 California.

608 Ms. Eshoo. Thank you, Mr. Chairman, and thank you to both
609 Mr. Kennedy and Mr. Furth for your testimony. I like hearing,
610 Mr. Kennedy, that you can't wait to get to work in the morning.
611 That is a pretty good sign to be excited about what you are doing.

612 I want to go back to some of the issues that I raised in my
613 opening statement. Of course the 911 centers are a central part
614 of FirstNet's ecosystem and they are the nerve centers. And so
615 I have four questions. I would like you to tell the subcommittee
616 what steps you are taking to ensure that there will be full
617 integration with the 911 centers and the benefits that come from
618 that.

619 To Mr. Furth, I would like you to address the issue of
620 cybersecurity, because there is, I think it is part of the task
621 force's responsibility -- I think I am correct on that -- and how
622 you are addressing that. My third question, and I think it would
623 go back to Mr. Kennedy, is the whole issue of competition and how
624 that is actually going to be addressed. And I think that is three.
625 I can't remember the fourth. Well, I think the security of
626 the data that FirstNet is going to handle, it is not only public
627 safety's information but it is also citizen information at the
628 same time, so -- and the other issue I want to raise is the role
629 of the states. I am getting some feedback that it is kind of all

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630 or nothing at all; that FirstNet controls all of the dollars.

631 Where is the incentive with the states?

632 This is delicate. I am a believer in you have a relationship
633 that isn't all that it should be in the beginning and then there
634 is another layer that is added to it and another layer that is
635 added to it and that can have an effect on the overall system.
636 We are the United States. We have 50 states, so -- and each state
637 has different needs. And the chairman raised it, some issues
638 about it.

639 I think you need to unpack for the committee members exactly
640 how it is going to work with the states. You control all the
641 money. Are there any incentives that you offered to the states
642 as you built this out with each one? And the whole issue of rural
643 and urban is really very, very important, because the RFP has gone
644 out to all of the major outfits and yet in broadband and in their
645 own services they have trouble getting services to rural areas
646 in our country. So is it all of a sudden because it is
647 FirstNet that all of that goes away and all is going to be well?
648 So if you could, between the two of you, comment on those four
649 issues. Most of them are yours, Mr. Kennedy.

650 Mr. Kennedy. Sure. Ms. Eshoo. Yes, thank you.

651 Mr. Kennedy. I will take the first one and then I will defer
652 to David on the second. So on integration with Next Generation

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911, we have an amazing relationship and have been reaching out to all of the 911 associations such as APCO who is here in the room today, NENA, and other key associations that support the need of our dispatch communities around the country.

Currently, what they do in 911 today and the ones who are already progressing to Next Gen 911 are very eager to make sure that they have the ability to take videos, texts and other things that will be coming in from citizens and to share that across FirstNet with public safety.

What is great about FirstNet being a data network is we will have the ability to take a video, to take a photo and make sure that that is put in the hands of police officers and firefighters in the field, and also from the field that we will have the ability to share with dispatch, to share with other public safety officials key data coming out of the field.

Ms. Eshoo. But let me just interrupt. That is a wonderful description of exactly what many do right now, but we want to make sure everyone does that and that they have the equipment and the standards. What, FirstNet sets those standards, and where is the competition with the devices?

See, I mean, I think there are many things that are woven into each one of these portions of the overall net.

Mr. Kennedy. There are. I mean, there is a number of

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elements. I am going to take the last element you mentioned on competition of devices. This is something squarely in FirstNet's camp. We have really been driving the open standards. We have been driving it at an international level, making sure that we follow 3GPP and the open international standards.

We have also been driving in different committees all of the things that need to be done to make sure that we have competition and that we have multiple devices that will be available from multiple sources that will have band 14 and spectrum available in those devices to be able to operate and to give low cost in different options across the board of both commercial devices and hardened public safety devices. So we have very much been only trying to drive that going forward.

When it comes to your first question of the different standards on Next Gen 911, there is still more work to be done there. At the same point, we are working very closely with our 911 partners to make sure that all of the intersections of where 911 is going to intersect with FirstNet that that integration is built into what we do with the FirstNet network. And we are also leveraging our labs at PSCR in Boulder, our Public Safety Communication Research Labs, to make sure that we are looking at the different elements of 911 and where the intersections with FirstNet will occur.

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699 Ms. Eshoo. What about the states?

700 Mr. Kennedy. When it comes to the states, one of the things
701 that we have done and we have learned to your point that
702 multilayered approach, is we have gone out and met on
703 consultations. We have realized that there are multiple layers
704 of how we need to interact with states and interact with locals,
705 through the state and along with the state, to make sure that they
706 have lots of opportunity to your point local control.

707 We have actually brought in our Public Safety Advisory
708 Committee, the PSAC, which makes up 42 different state and local
709 and public safety associations, to take on this exact issue of
710 local control and to work with different associations across the
711 country and come back with advice for FirstNet on how best to
712 address the local control issue and meet the needs of each state.

713 I want to defer to David on the cyber question.

714 Mr. Furth. If we have time. I know I can answer it, but
715 I will defer to you.

716 Mr. Walden. Why don't you go very quickly because I know
717 it is a concern of other members on the committee.

718 Mr. Furth. If I could very just briefly address the
719 cybersecurity question that you asked. You mentioned the task
720 force that the FCC convened. We convened a task force about a
721 year ago on PSAP optimization in the NG911 environment, and one

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722 of the working groups in that task force was specifically assigned
723 to look at cybersecurity for PSAPs. We recognize that this a
724 critical issue and we are concerned that many PSAPs particularly
725 smaller ones around the country are not adequately prepared.

726 That task force has just come back to us as of last week with
727 a series of very detailed recommendations on how to move forward
728 with cybersecurity for PSAPs in the NG world, and we are going
729 to be working with FirstNet to make sure that those
730 recommendations sync up with what FirstNet is doing so that both
731 ends of the communications chain are secure from cyber attack.

732 Mr. Walden. All right, thank you. We will now turn to the
733 gentlelady from Tennessee, Ms. Blackburn.

734 Mrs. Blackburn. Thank you, Mr. Chairman. And I appreciate
735 Ms. Eshoo bringing up the cyber issue. She has focused on this
736 repeatedly, and I want to pick up right there and kind of go to
737 the next part of this question on cyber. We will start
738 there, Mr. Kennedy, with you, and look at FirstNet's system design
739 and talk a little bit about where you are in that system design,
740 just not the recommendations that you have just said you all now
741 have a set of recommendations, but I want to know where you are
742 and then kind of what you see as a timeline on this.

743 Mr. Kennedy. So, a couple of things. We actually have put
744 out a public notice in some key RFI documents related to cyber.

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745 We received comments back from industry and from states and public
746 safety this past fall. We have incorporated those into our final
747 section in the RFP on cybersecurity. As part of that we have
748 always envisioned that we are building in security from day one.
749 We are not just tacking it on at the end. We also want to leverage
750 the best practices from the private sector as well as within
751 government to make sure that we are taking more --

752 Mrs. Blackburn. Okay, let us stop right there --

753 Mr. Kennedy. Sure.

754 Mrs. Blackburn. -- because government networks,
755 obviously, OPM breach, NASA, they are not secure. And whether
756 it is an encryption issue, whatever, we know that there are some
757 gaping holes, if you will, that are there. So I don't think that
758 is the standard that we want to hold up, so I will yield my time
759 back to you to continue.

760 Mr. Kennedy. So on that front we are really looking for
761 industry as part of the responses to this RFP to bring forward
762 private sector best practices as part of their solution that will
763 be judged against our standards that we have put forward in Section
764 J of the RFP to be able to make sure that they meet the highest
765 standards that public safety will need to meet, and make sure that
766 we ensure the security of all the data related to emergency medical
767 services, law enforcement, and the fact that we are going to have

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768 all this data operating across the FirstNet network.

769 Mrs. Blackburn. Okay. We are going to be watching that
770 very closely. We fully understand and appreciate the need for
771 the data security. We also understand that you have data transfer
772 that needs to be considered. All of these things are going to
773 have to be taken one at a time. We appreciate that and we just
774 work forward to working with you on it.

775 Mr. Furth, I want to come back to you on this opt-out process.
776 You talked about that in your testimony a little bit. In 2013,
777 in response to a question for the record, the Public Safety Bureau
778 stated, and I am going to quote, "the Commission will coordinate
779 closely with FirstNet to ensure that the review process by the
780 FCC of state alternative plans is conducted in a timely manner,
781 consistent with FirstNet's deployment plans and associated time
782 frames."

783 Okay, so here we are in 2016 and it sounds like you are going
784 to do a rulemaking to establish a process; is that correct?

785 Mr. Furth. That is correct.

786 Mrs. Blackburn. Okay. Now looking at timelines again, how
787 long do these rulemakings generally take with the FCC, and do you
788 think there is any validity to the concerns that many people have
789 that the FCC is slow-walking, intentionally slow-walking this
790 process in order to frustrate some of the state opt-outs?

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791 Mr. Furth. Thank you for the question. We certainly have
792 no intention to slow-walk this process. We think it is very
793 important that the states, at the point where they are going to
794 have to make that decision about whether to opt out, understand
795 what the process will be that the Commission will use to review
796 those requests.

797 And we have, in fact, as we indicated in 2013, been working
798 with FirstNet and consulting with them on their timeline. The
799 critical point in their timeline is that they are saying at this
800 point once the RFP process is completed that the state plans will
801 be delivered to the states in the second quarter of 2017.

802 So that is our target. We have to have our rules in place
803 before then, and therefore we are not going to delay. We want
804 to initiate a rulemaking in the near term to make sure that we
805 have the flexibility that we need to get those rules done in a
806 timely manner.

807 And you asked about the speed with which the Commission
808 conducts rulemakings. The Commission is capable of conducting
809 rulemaking very quickly, and particularly on an issue like this
810 we are really focused on one piece of the statute and the two-prong
811 test that the statute gave us for how we are going to administer
812 this review process of the opt-out requests.

813 So our focus is going to be on that statute and how we

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814 implement it, and that is why we intend in the near term to get
815 public comment so that we can reach a timely conclusion on that
816 in time for the process that FirstNet will undertake in 2017.

817 Mrs. Blackburn. Okay. Just bear in mind, to us it seems
818 like it is taking you a mighty long time to get around to doing
819 it.

820 Mr. Furth. Well, I would actually suggest that the time is,
821 this is the right time to do it because now we have the RFP. It
822 would have been difficult, I think, to initiate this rulemaking
823 before the RFP had been released by FirstNet, because that is one
824 of the things that those who look at our proposals are going to
825 need to make reference to, and we think it will actually build
826 a better record to put this rulemaking out now that the RFP has
827 been released by FirstNet. So we think actually the timing for
828 starting this is right. Thank you.

829 Mrs. Blackburn. Okay, yield back.

830 Mr. Walden. The gentlelady yields back. The chair
831 recognizes the gentleman from Pennsylvania, Mr. Doyle.

832 Mr. Doyle. Thank you, Mr. Chairman. Mr. Kennedy, Mr.
833 Furth, welcome. We appreciate you both being here.

834 In my district, the city of Pittsburgh, as well as
835 Philadelphia and 11 other major cities around the country, first
836 responders will need to give back spectrum located in the T-band

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837 that they currently use for communications. What assurances can
838 you both provide me that the first responders in these affected
839 cities that are losing access to this band that will not affect
840 their ability to accomplish their mission? Do either of you see
841 any potential problems with this transition?

842 Mr. Furth. Let me take that since that provision in the
843 statute is really the Commission's responsibility to implement.
844 And the statute specifically gives us a long timeline to deal with
845 the T-band issue, the initial deadline to reallocate spectrum and
846 begin the auction process, which is not the relocation process
847 but simply the beginning of the process for setting up an auction.
848 That deadline is 2021, so that is still five years away.

849 Nonetheless, we are very cognizant of the situation that
850 T-band licensees are in, and at the point where we look at how
851 to implement the statute we want to make very sure that there is
852 no loss of service, no loss of continuity in whatever transition
853 mechanism there is to ensure that the citizens of those 11 markets,
854 those 11 communities, are not left without public safety services
855 as a result of that transition.

856 Mr. Doyle. Thank you. Mr. Kennedy, in creating a
857 sustainable funding stream for FirstNet, the private partner you
858 choose will need to monetize your 20 megahertz of spectrum in band
859 14. First, how soon will the spectrum be available once FirstNet

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860 chooses a private partner; second, what steps has FirstNet taken
861 towards ensuring that consumer devices will include band 14
862 chipsets; and finally, based on the previous examples of this type
863 of spectrum becoming available, how long do you think it would
864 take for devices and services using this band to become available?

865 Mr. Kennedy. One of the things we have laid out is an
866 aggressive plan to work with the incumbents that are on band 14
867 today to make sure that they are moved to other narrow band public
868 safety spectrum. And we have been talking to all of them. A few
869 of them have already moved off proactively. All of them have been
870 under notice for a number of years that this was going to happen,
871 and so they are very much prepared to go there.

872 We are working with them to have all that spectrum cleared
873 before we actually get through to the state plan process, and we
874 are trying to move very quickly to make sure that that happens
875 by the middle of 2017. This would allow a partner to be able to
876 have encumbered spectrum shortly after contract award and be able
877 to deploy the network knowing that that spectrum was immediately
878 available, which we think is a very important piece.

879 When it comes to having devices, one of the things that we
880 have written into the RFP is we are asking proposers to come
881 forward with an entire ecosystem of band 14 devices that they are
882 going to proffer as part of their solution. And because industry

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883 itself has the greatest amount of size and scope that will be able
884 to drive device manufacturers to include band 14 in their devices,
885 they can actually drive a bigger ecosystem than public safety can
886 alone.

887 Mr. Doyle. Thank you. Mr. Kennedy, some of the critics of
888 FirstNet have repeatedly said that only the largest wireless
889 telecommunication companies would be capable of taking on a
890 project of this size. When you were crafting the RFP what steps
891 did you take to broaden the group of entities capable of partnering
892 with FirstNet, and do you believe that there are entities out there
893 other than the large telcos interested and able to fulfill the
894 terms of the RFP?

895 Mr. Kennedy. That is a great question. One of the things
896 we did through all of the different RFIs and our consultation with
897 states and with industry was try to come up with a way that was
898 driven by objectives, the objective for public safety in a
899 performance based acquisition. This is different than the
900 typical 10,000 lines of specific requirements that we often see
901 in government procurements. The reasons we did that was to drive
902 more competition and not less. We wanted to have an objective
903 based procurement that allowed everybody to address the
904 procurement in a different way as long as they were meeting all
905 of the objectives of public safety. We believe that this will

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906 actually drive greater competition and not less competition at
907 the end of the day.

908 We also did a number of notices on different sizes and scopes,
909 whether we should look at this regionally or nationally and what
910 was the best approach to that. After that we went forward with
911 a nationwide objective driven RFP that we believe through teaming
912 will make sure that it brings the greatest amount of opportunity
913 to the table for the different offerers that come together.

914 We also believe that there are other folks outside of the
915 major telco providers that could bid and win this opportunity and
916 we believe there is interest out there. We believe that there
917 are multiple ways that folks could come forward with the different
918 assets that have been put forward in this partnership that could
919 actually make this work in a way that will be very beneficial to
920 public safety.

921 Mr. Doyle. Thank you. I see I just have one second. With
922 regards to the opt-out issue do you have any thoughts on how many
923 states you think will opt out?

924 Mr. Furth. No. We will be prepared for any contingency in
925 terms of the number of states that opt out.

926 Mr. Doyle. Okay. Mr. Chairman, thank you.

927 Mr. Walden. You are welcome. We will now go to the former
928 chairman of the committee, Mr. Barton.

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929 Mr. Barton. Thank you, Chairman. Mr. Kennedy, have you
930 ever heard of a radio talk show host in Texas named John Brady
931 Wells?

932 Mr. Kennedy. I have not.

933 Mr. Barton. You sound exactly like him.

934 Mr. Kennedy. I will be Googling him right after this.

935 Mr. Barton. If you close your eyes it sounds like I am on
936 the John Brady Wells Show or I am listening to the John Brady Wells
937 Show. That was not a trick question.

938 Mr. Walden. It is how we are helping pay for FirstNet,
939 moonlighting.

940 Mr. Barton. He is very, very conservative. Anyway, my
941 first question to you Mr. Kennedy would be, and it was just asked
942 in a different way. How many states have indicated that they want
943 to opt out and create their own network?

944 Mr. Kennedy. So on this question, the timing of when the
945 opt-in/opt-out decision actually occurs is post our acquisition
946 and the contract award and post a state getting a state plan.

947 The reality is having the ability to compare how good that
948 state plan meets the needs of the state is one of the key
949 considerations that will need to be looked by each and every state
950 when they look at this consideration for opt-in and opt-out. We
951 also believe that it is going to be incumbent on those offerers

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952 who are coming forward to bring a very compelling offering,
953 because they will want to bring in as many states as possible to
954 make this a very successful solution for public safety and to make
955 it so that there is less integration or risk in the overall
956 project.

957 As part of that they are going to have to have a very
958 compelling offering that goes into each of these state plans, and
959 with that we will then have a feeling for who would consider
960 opt-in, who would consider opt-out. We do believe though that
961 it is important that we have been continuing to build through our
962 consultation, open dialogue, open relationships, open
963 discussions about the benefits of opt-in, about the benefits of
964 the FirstNet network overall, and at the same point preserving
965 the rights for states to go through that process and to work
966 forward.

967 Mr. Barton. Well, my guess is, and it is purely a guess,
968 is that there will be a number of states. I mean, some of them
969 are pretty obvious -- Alaska, Hawaii -- because they are almost
970 self-contained by geography and conditions. And then there are
971 some that have a history of independence. Just out of the blue,
972 Texas, we have our own electric grid. So I would assume that
973 there will be a number and that is something that I would hope
974 that there is some planning, because even if you opt out to have

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975 your own state network it certainly has to be interoperable within
976 the state with everyone, and it has to be interoperable with the
977 other networks and the national network. Has there been any
978 interaction with Texas so far about that? I know that Harris
979 County has a local network that we tried to make sure was
980 acceptable.

981 Mr. Kennedy. We actually just held our most recent board
982 meeting down in Houston. And actually, the FirstNet team and the
983 board visited the Harris County project again and had great
984 interaction with the team and the significant progress that they
985 have made on that early builder project and the lessons learned,
986 both key lessons learned that were in the spectrum lease
987 agreement, but also the unofficial lessons learned from deploying
988 that network so far and the growing pains as they work through
989 continuing to grow that network. On a lot of discussions with
990 the state of Texas who are involved from the SMLA perspective but
991 also with the consultations throughout Texas, as you know the
992 thousands of public safety agencies in Texas, a huge amount of
993 key constituents for Texas to visit with. Todd Early and his
994 team, and Skylor Hearn from the Texas Department of Public Safety
995 have been crisscrossing the state. They have a tremendous team.
996 They have actually built an online web portal and key training
997 for public safety responders throughout the state to make sure

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998 they are informing them about the network. We have been
999 working very closely with them and even met with key officials
1000 in Austin to make sure that they understand both opt-in and
1001 opt-out and all the opportunities that will become available with
1002 having a public safety network for first responders in Texas.

1003 Mr. Barton. Okay, thank you. I guess my last question and
1004 kind of the \$64 question which is hard to answer, what is your
1005 gut reaction when we will actually have FirstNet up and running?
1006 Not just talking about it and making significant progress and
1007 moving forward and all this, but actually have a network that is
1008 functional and that is usable?

1009 Mr. Kennedy. It is going to occur after the opt-in and
1010 opt-out decision. And after a key opt-out and opt-in decisions
1011 we will have the ability to move forward with deployments in
1012 states. Right now we are anticipating that those state plans,
1013 much of what was mentioned by David earlier today, will be
1014 occurring in mid-2017 and that they will be coming out after this
1015 contract award. We then have that 90-day period for opt-in and
1016 opt-out.

1017 So as early as late 2017, the network would start being
1018 deployed. Operations will depend on the size of a state, even
1019 the size of the region and so forth for how that will be deployed.
1020 In some cases that will take a number of years, but trying to make

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1021 sure that we get the network up and running as quick as possible.

1022 Mr. Barton. So in the reasonable future. We are not
1023 talking ten years, we are talking --

1024 Mr. Kennedy. No, no, very reasonable future.

1025 Mr. Barton. Okay, thank you. Thank you, Mr. Chairman.

1026 Mr. Walden. Gentlemen, I appreciate your comments. We
1027 will now go to the gentlelady from Colorado, Ms. DeGette, for
1028 questions.

1029 Ms. DeGette. Thank you, Mr. Chairman. Well, I know that
1030 some of my questions have been asked but they haven't been asked
1031 by everybody, but I am still not going to ask them. There was
1032 one topic I wanted to talk to you about though, and that is the
1033 topic, Mr. Kennedy, we talked about last year when you were here
1034 when we discussed NIST, which of course has facilities in
1035 Colorado.

1036 At that time you told us on committee that FirstNet had just
1037 started to work with NIST on a number of technical questions. I
1038 was wondering if you could give me an update on that work and let
1039 me know how that has helped inform the recent RFP.

1040 Mr. Kennedy. The work being done by the Public Safety
1041 Communications Research Lab has been invaluable to FirstNet. We
1042 have a very close relationship, and actually our technical team
1043 is also headquartered in Boulder so that they can have close

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1044 proximity to the NIST team. This team is working on key issues
1045 like priority and preemption. They have been literally testing
1046 and loading networks to make sure that the priority features and
1047 these preemptive features that are going to be critical to this
1048 public safety network to always have the on-demand resources they
1049 need for big emergencies has come because of the tremendous work
1050 by PSCR.

1051 Another key element is looking at standards work. PSCR is
1052 part of all the third generation partnership project standards
1053 meetings. These are critical, because we need to not only build
1054 to a nationwide standard, but also to international standards to
1055 make sure that we keep open networks and open standards and also
1056 have a variety in ecosystem of devices and equipment that will
1057 be cost effective. That work is very much being driven by NIST.

1058 A third element really goes into cybersecurity and making
1059 sure that we look at the best practices and that they are also
1060 doing key testing. And so tremendous amount of work being done
1061 by NIST and PSCR.

1062 Lastly, they are actually setting up right now task teams
1063 with our Public Safety Advisory Committee who is going to be
1064 working on advising PSCR and NIST on leveraging the R&D money that
1065 is in our act to make sure that we look at key interfacing of LTE
1066 going forward and what we are doing in LMR systems and also making

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1067 sure that we meet all the mission-critical needs for public
1068 safety. So it is a tremendous ongoing relationship and we
1069 couldn't be more pleased with the work by the PSCR team.

1070 Ms. DeGette. Thanks. I guess I will yield back. Thank
1071 you.

1072 Mr. Walden. We now turn to Mr. Latta, the vice chair of the
1073 subcommittee for questions.

1074 Mr. Latta. Well, thanks, Mr. Chairman, and thanks again for
1075 having today's hearing. And gentlemen, thanks very much for
1076 being with us today. We have had multiple hearings on this issue
1077 and it is very, very important. And I know that I was contacted
1078 early on in the process, and there is a question out there about
1079 making sure that the states were being heard.

1080 And so I think that what we are hearing today and also from
1081 your testimony, Mr. Kennedy, I see you stated that you received
1082 data from over 1,160 public safety entities representing 1.6
1083 million public safety personnel from 54 states and territories
1084 and seven federal agencies. And that is important, because again
1085 that is one of the things that the folks out there wanted to make
1086 sure that they were being heard as this was being put together,
1087 since it is vital not only to the folks back home for making sure
1088 that all their security needs are being taken care of, or when
1089 there is an emergency or ambulances are being called, but that

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1090 is across the entire nation. And also it is important that as
1091 we go forward that we keep that up.

1092 And if I could, I would like to start, Mr. Kennedy, with a
1093 question. I appreciate again FirstNet's inclusion of the
1094 partnerships with the rural telecom providers within the proposal
1095 evaluation criteria, thereby attempting to ensure small rural
1096 carriers are not left out of the FirstNet solution. And again
1097 that is important to a lot of us because my district is very --
1098 like a lot of the people here, I have very, very, very rural areas
1099 in my district and a few go to urban. And so we want to make sure
1100 that everyone that is out there has that ability for those small
1101 FirstNet tests for that solution.

1102 Can you tell me how FirstNet will define the rural telecom
1103 provider?

1104 Mr. Kennedy. Sure. The rural telecom providers actually
1105 includes all of those that are providing telecommunication
1106 services in rural areas. And we know that some of them do and
1107 don't provide wireless service, for instance, today, others are
1108 providing key backhaul, and we want to make sure that they are
1109 all included as part of this infrastructure that has to be
1110 leveraged.

1111 We also believe it is important that we put some minimums
1112 in the RFP to help ensure that there is a good conversation that

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1113 is going on between rural providers and others who are aggregating
1114 a team to bid on the nationwide network.

1115 Lastly, as I mentioned a little bit earlier in response to
1116 a question, we are also continuing to look at the minimums that
1117 are happening at each phase of deployment. And we have actually
1118 upped some of those from our initial draft RFP in the final RFP
1119 to ensure that rural deployment is first and foremost on folks'
1120 minds and to be able to deploy quickly in the way that we have
1121 put forward in the RFP. The way that we think that that can best
1122 happen is leveraging the infrastructure that is out there today.

1123 Mr. Latta. Okay. You touched on it a little bit earlier,
1124 but I am also interested in hearing what FirstNet has to say
1125 regarding how you are going to manage the security on mobile
1126 devices so that other adjacent systems aren't breached. Are you
1127 looking at technology solutions to ensure that mobile devices are
1128 authorized and that the access will be restricted?

1129 Mr. Kennedy. We are. And we are also looking at really
1130 driving industry to be very innovative in their responses that
1131 are part of this. We know that identity and credentialing and
1132 access management and that human factors are often one of the
1133 weakest links when it comes to a network. And so understanding
1134 which device is tied to which first responder and also who is using
1135 it at that particular time is very critical.

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1136 We actually set up an advisory committee within the Public
1137 Safety Advisory Committee for FirstNet to look specifically at
1138 this ICAM, the Identity Credentialing and Access Management. It
1139 is such a huge issue across major agencies today. And also making
1140 sure that we do it in an innovative way for public safety to still
1141 make sure that accessing these devices is very usable and that
1142 they can use it in the environment in which they operate.

1143 One of the unique things about public safety, firefighters,
1144 for instance, operate with heavy leather gloves and other things
1145 on, EMS personnel have latex gloves. And being able to
1146 interoperate and use devices in the harsh environment that public
1147 safety uses is critical. So it has to be very usable but it also
1148 has to be very secure, and we are looking at that all the way down
1149 to the device level.

1150 Mr. Latta. When you are talking about that let us just
1151 follow up on the security end of it. What are you finding as you
1152 are going through all these meetings and with your group there?
1153 What are you finding? Because again this is something that we
1154 talk about all the time, I mean, across the board here.

1155 When you are talking about cybersecurity how are we going
1156 to do that and make sure that we don't have some kind of a massive
1157 emergency and all of a sudden find that they are getting hacked
1158 or that there is a cyber attack at the exact same time?

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1159 Mr. Kennedy. I think we are all finding that cyber is a very
1160 active process. It is not a one and done solution. We know that
1161 we have to build it in from the very beginning, but we also know
1162 that we have to have an ongoing process to deal to the evolving
1163 threat. And to do that we are maintaining a number of key issues
1164 as we talked about earlier, leveraging what is being done with
1165 NIST and PSCR, but also from industry. And I think it is critical
1166 that we really leverage what is coming out of industry, and there
1167 is more to be done. There is no one silver bullet.

1168 Mr. Latta. Okay. Thank you very much, Mr. Chairman. My
1169 time is expired and I yield back.

1170 Mr. Walden. The gentlemen yields back. The chair
1171 recognizes the gentleman from California, Mr. McNerney, for five
1172 minutes.

1173 Mr. McNerney. Thank you, Chair, for holding this hearing.
1174 I just want to say my district includes Contra Costa County, part
1175 of the San Francisco Bay area, and back when we had earmarks I
1176 got involved with interoperability efforts in that county and they
1177 were successful. But I have to say I was pretty surprised at how
1178 difficult it was, how expensive it was to get this done, so I am
1179 glad you have done all the work that you have been able to do.
1180 Are you able to learn much from those early attempts at
1181 interoperability?

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1182 Mr. Kennedy. Yes, we have been. I mean, we have been very
1183 much trying to take the lessons learned on both the land mobile
1184 radio side of interoperability and now on the LTE side looking
1185 at both voice and data interoperability. Voice interoperability
1186 has been a longstanding issue. I personally have had a lot of
1187 experience in leveraging how do we get these disparate systems
1188 to work together. Our country has spent a lot of money trying
1189 to make sure that that occurs. One of the unique things
1190 about FirstNet and something that Congress did as part of this
1191 act is making sure that we will all be operating on the same
1192 spectrum and on the same key standards, international standards
1193 related to LTE, and I think that is really a huge part of making
1194 this a success.

1195 Mr. McNerney. Well, it is clear that consultations with the
1196 states is an important part of the process. Are you done with
1197 that phase or are you still in the consultation process?

1198 Mr. Kennedy. So we have gone out as part of the consultation
1199 process and met with 55 states and territories so far. Many of
1200 these states we have had more than one engagement with and we are
1201 going to continue to engage in 2016 and beyond. We don't believe
1202 that consultation just has a magic end to it. We believe that
1203 we will need to continue to consult up until state plans and then
1204 even during the deployment of the network.

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1205 That consultation is going to get much more specific this
1206 year in that we are actually going to have consultation task teams,
1207 and we are also looking to have key executive meetings with each
1208 state to make sure that key decision makers are informed before
1209 we get to the state plan process.

1210 Mr. McNerney. So were the states pretty engaged and
1211 enthusiastic about this?

1212 Mr. Kennedy. They were very engaged. And every state has
1213 a different way of how they approach their different key public
1214 safety stakeholders, but we were amazed at the amazing turnout.
1215 Some states had well over a hundred and 150-plus people who were
1216 engaged in an all day consultation session. Many of the states
1217 even involved neighboring states to make sure that they had good
1218 cross-communication across states. So a terrific turnout.

1219 And one of the great things about these state consultation
1220 efforts was that we learned so much about the unique differences
1221 that occur in each state. We learned what is very important to
1222 them. And they also presented use cases, and each and every state
1223 actually came out and presented use cases on major disasters that
1224 have either occurred in their state -- take the state of Minnesota,
1225 talked about the I35 bridge collapse -- and what kind of
1226 communications could have happened and occur if they would have
1227 had a broadband public safety network that they could have

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1228 utilized during that kind of a disaster.

1229 That kind of real-world thought process and discussion that
1230 was an ongoing discussion throughout that consultation just shows
1231 you briefly what we had at each and every state, and really being
1232 able to understand how they operate to make sure that the state
1233 plan that we can bring forward for that state understands their
1234 unique needs.

1235 Mr. McNerney. So how much interest did you see from small
1236 businesses and carriers in this outreach process?

1237 Mr. Kennedy. We have seen a lot of interest from both small
1238 business and carriers. Many of them showed up at different
1239 consultations in different states. More importantly, huge
1240 turnouts for our industry days.

1241 When we released the RFP recently, we actually held a call
1242 with over 600 participants from industry, both big and small, who
1243 actually came to that call for a briefing on the RFP release. As
1244 a part of that process we have actually set up on our website and
1245 on the FedBizOpps website, which actually has the opportunity for
1246 the FirstNet RFP, a teaming portal so that small businesses can
1247 put themselves out there and their key capabilities so that they
1248 can help join with teams and make sure that they are being seen
1249 for what kinds of things they could bring to the table.

1250 Mr. McNerney. Well, thank you.

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1251 Mr. Furth, clearly one of the controversial issues is state
1252 opt-out. What information would be helpful for the FCC to have
1253 in order to do the best job in producing opt-out rules?

1254 Mr. Furth. Well, primarily it will be information that
1255 relates to the test that sets forth in the statute. But that is
1256 one of the reasons that we feel it is important to do a rulemaking
1257 on this process, because that way we can seek comment from all
1258 interested parties to determine what is the information that we
1259 will require states to provide us.

1260 The two-prong test in the statute is simply phrased, but we
1261 need to make sure that we have a full understanding of what is
1262 behind those phrases and so that states know, if they are making
1263 the choice whether to opt out or not, what the choices are both
1264 in terms of what FirstNet has presented them and what they would
1265 need to present to the Commission if they were to elect opt-out.

1266 Mr. McNerney. Thank you, Mr. Chairman.

1267 Mr. Walden. Thank you, sir. We will now turn to the
1268 gentleman from Illinois, Mr. Shimkus, for questions.

1269 Mr. Shimkus. Thank you, Mr. Chairman. I want to just
1270 follow up a little bit with Chairman Walden on the 25-year RFP
1271 issue. It was eight years ago that the first iPhone rolled out.
1272 And I remember, other than Courtney and Darrell Issa, they were
1273 like the first adopters, now we have not just Apple, but Nexus,

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1274 Samsung, LG, Motorola, HTC. I mean, who does not have one? And
1275 I think that is the concern of a 25-year RFP locking folks in when
1276 the tech community can go crazy in a short amount of time. So
1277 I just wanted to weigh in on that.

1278 And staying on the RFP questions, we also are concerned about
1279 we had challenges in 2007 with the D block because of -- the
1280 argument was it was encumbered by other issues that cause it not
1281 to be valued by people who would bid. Some people are raising
1282 that concern with the RFP. Have you looked at that, Mr. Kennedy?

1283 Mr. Kennedy. We have. We have looked at encumbrance and
1284 we have also looked at how this compares to other auctions both
1285 past and present that are occurring. The encumbrance of many
1286 of the recent auctions, even the
1287 AWS-3 auction and others, many of them have some encumbrance
1288 related to either military personnel or other agencies that are
1289 still on some of that spectrum. We also know that with the
1290 broadcast incentive option a certain amount of time, 39 months,
1291 to be able to be moved off of that and some of those key
1292 considerations.

1293 In the public safety case we are talking about 5 million to
1294 10 million to 13 million first responders and key personnel that
1295 will be leveraging the network depending on really trying to make
1296 sure that we meet all the needs of public safety. And we know

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1297 today that the major networks that already exist have a huge number
1298 of customers. I mean, we are talking about hundreds of millions
1299 of folks out there today. And if we look at similar spectrum,
1300 similar spectrum that is being leveraged by commercial carriers
1301 today, 20 megahertz of 700 megahertz spectrum is going to be
1302 leveraged for capacity, we believe, in ways that are still quite
1303 valuable and are not over encumbered to be able to get great value
1304 out of that.

1305 We have also done a lot of market research and a lot of
1306 discussions with industry leading up to this and we have seen great
1307 interest in that spectrum and that they think there is value there.

1308 Mr. Shimkus. Thank you. Let me talk about the penalty
1309 mechanism real quick. There is a penalty for failing to hit these
1310 targets. It is our understanding that the targets are set by the
1311 contractor. If that is the case, do you think that they kind of
1312 lowball the targets to make sure they meet their contractual
1313 obligations?

1314 Mr. Kennedy. There is always the chance that that can occur.
1315 One of the things that we have tried to do is to balance the needs
1316 of public safety in making sure that we can ensure great adoption
1317 by public safety. We put public safety first and foremost in both
1318 these penalties and also in the objectives that are driving the
1319 RFP. At the same point we want to make sure that they are

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1320 achievable, and we believe through competition and in competition
1321 in the RFP that different offerers will provide and have to step
1322 up to the plate with good adoption targets that we are going to
1323 compare against each other, and I think that is important.

1324 Mr. Shimkus. And I missed the discussion a little bit on
1325 PSAPs. I was walking in from another hearing. But we know that
1326 one of the board members opined about the changing role for PSAPs.
1327 Does that mean that there is actually discussions by you all about
1328 functionalities provided by PSAPs or you all providing guidance
1329 to PSAPs?

1330 Mr. Kennedy. I certainly think that the enhanced
1331 functionality of FirstNet is going to provide new and different
1332 ways of communicating for PSAPs to and from the field to police
1333 officers, firefighters and EMTs. I do believe that that is an
1334 opportunity for 911 centers to continue to grow and leverage that
1335 new technology.

1336 I will defer some time to David to answer this though from
1337 the PSAP perspective in the FCC.

1338 Mr. Shimkus. That would be great. Thank you.

1339 Mr. Furth. And in fact we have encouraged 911 authorities
1340 and PSAPs to get involved with the FirstNet state consultation
1341 process for precisely that reason that these both elements are
1342 very interconnected. And we are also very focused on our efforts

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1343 with our PSAP task force and with some of our efforts at the
1344 Commission to advance Next Generation 911 in making sure that the
1345 PSAPs evolve in parallel with the intended deployment of the
1346 FirstNet network so that there will be, in fact, true
1347 interoperability all across.

1348 Mr. Shimkus. Well, thank you. Because as you know, Ranking
1349 Member Eshoo and I, we have been really focused on the PSAPs'
1350 evolution over the time and I am sure we will be looking at it
1351 closely to make sure that we are not stumbling over each other
1352 but were very helpful in providing the network that we are all
1353 looking for.

1354 Mr. Furth. And if I might add, we have also -- I don't know
1355 if T.J. mentioned it -- but they have actually hired a Next
1356 Generation 911, a 911 specialist that will be working with us.
1357 We were going to have a meeting, but I think it was postponed by
1358 the snowstorm. But we are looking forward to starting that
1359 relationship very shortly.

1360 Mr. Shimkus. Thank you.

1361 Mr. Walden. Okay. We will turn now to the gentlelady from
1362 New York, Ms. Clarke, for five minutes.

1363 Ms. Clarke. Thank you very much, Mr. Chairman, and I thank
1364 our ranking member. Good to see you again, Mr. Kennedy. I have
1365 a couple of questions and it has to do with the whole opt-out piece,

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1366 because you mentioned that this construct is geared towards a
1367 state opting out.

1368 Have you taken into consideration perhaps a part of a
1369 jurisdiction of a state, and have you also taken into
1370 consideration maybe a grouping of states so that there is a
1371 tri-state opt-out? And what would be the tipping point for a
1372 national system network if the opt-out provision is utilized by
1373 50 percent of the jurisdictions in the nation, right. How have
1374 you envisioned managing cybersecurity given the variability of
1375 systems that can be established, and what would be the sort of
1376 management maintenance standards that could be put in place to
1377 make sure that we have a standard across the board for robust and
1378 impenetrable network, if you will?

1379 Mr. Kennedy. A number of very good questions. First off,
1380 I think on the opt-out question the act is fairly prescriptive
1381 on what it says on the opt-in/opt-out decision related to the radio
1382 access network portion of the network. The good news is the core
1383 network and the nationwide backbone of this network are
1384 nationwide, and they are something that everyone will need to
1385 connect into and leverage both the integration, the network
1386 policies that we put forward, and in an opt-out scenario they would
1387 work both through the FCC and the NITA process and FirstNet to
1388 make sure that they will be interoperable. And I think that that

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1389 is absolutely critical to make sure that we have a successful
1390 network.

1391 As far as different sizes and scopes, the act did not
1392 anticipate either a substate or multi-state way of doing that.
1393 And so the process we have to go through is very much state driven
1394 by each governor having that opportunity to make that decision
1395 about that radio access network.

1396 Ms. Clarke. So where you may have a tri-state authority that
1397 has the infrastructure already in place for whatever they do in
1398 terms of deployment of emergency, they may see it necessary to
1399 make sure that their interoperability is at a certain standard.
1400 Couldn't they come in with an opt-out plan from a tri-state
1401 perspective?

1402 Mr. Kennedy. Right now the plans are very much driven at
1403 a state by state level based upon that governor decision. We have
1404 seen states certainly being very open in talking to each other
1405 and sharing best practices and talking about future solutions.
1406 The good news, because we will be operating all under the same
1407 network policies, not only will those three states be
1408 interoperable, but all 50 states, five territories and the
1409 District of Columbia have to be interoperable. So we all be
1410 operating on the same standards. We will all be operating off
1411 the same core network for public safety users. This is a critical

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1412 baseline to make sure that we maintain that interoperability.

1413 Ms. Clarke. So it may be just a matter of utility then what
1414 type of instruments are being used, and that is where the
1415 vulnerabilities could ultimately lie when you are talking about
1416 cybersecurity. So what, are we looking at a standard in terms
1417 of -- you are not going to govern what companies they decide to
1418 go with if they opt out, but not all companies are equal either.
1419 So how do we get to that floor where -- because anyone who is
1420 vulnerable in the system, whether it is an instrument or something
1421 else, makes the entire system vulnerable, right?

1422 Mr. Kennedy. Absolutely. And your point is valid that the
1423 weakest link is always the issue, and often we see that as even
1424 a human link. To your point about being impenetrable, I think
1425 most impenetrable networks are also not very useable, and so we
1426 also have to have both pieces of that to make sure that we are
1427 having great security and also good use for public safety needs.

1428 One of the things we have done is set forward a number of
1429 key elements within our cybersecurity part of the RFP to make sure
1430 that we are driving those cyber best practices. And we are really
1431 leveraging industry to respond to that RFP and anything that would
1432 come in from an opt-out perspective would have to meet or exceed
1433 those same standards. So we believe that this is going to ensure
1434 that we have ongoing cybersecurity, and also that we have as part

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1435 of our partner a key security operations center. Security is
1436 dynamic. It is not something that is static and doesn't change.

1437 Ms. Clarke. Absolutely. And any company that has a weak
1438 link within them, so, right, could be human, could make the
1439 infrastructure vulnerable. So I just want to try to look at
1440 maintenance as well and how we build that standard out. I yield
1441 back, Mr. Chairman.

1442 Mr. Walden. Well, thank you very much. The gentlelady
1443 yields it back. And the gentleman from Kentucky is recognized
1444 for five minutes.

1445 Mr. Guthrie. Thank you, Mr. Chairman. Thank you for the
1446 witnesses for being here. And Mr. Furth, in your testimony you
1447 mentioned that the public notice regarding relocation of current
1448 users of FirstNet spectrum. When can the committee expect to see
1449 a resolution?

1450 Mr. Furth. We released that public notice in November. We
1451 obtained comments from interested parties in December. FirstNet
1452 submitted an ex parte to us a couple of weeks ago, so we are working
1453 very actively on that again cognizant of FirstNet's timeline
1454 because they are setting up a funding program and they have given
1455 us a requested date for when they would like to see the spectrum
1456 cleared. So with all of those elements in place I think that we
1457 can move forward quite quickly to reach a resolution on that.

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1458 Mr. Guthrie. That sort of answered my second question. I
1459 was going to ask Mr. Kennedy if your timeline is, if FirstNet is
1460 able to move forward with the timeline that you offer. But I guess
1461 you all have agreed upon a date, so it sounds like -- and you are
1462 going to meet the date they have agreed upon? I guess that is
1463 the question.

1464 Mr. Furth. I wouldn't say we have agreed upon a date. They
1465 have given us a date. They have said they would -- their request
1466 is that the licenses be modified so that any incumbent could not
1467 stay on the band past July of 2017 without FirstNet's consent.
1468 But they have also set up a funding program and a relocation
1469 program consistent with that timeline. And as T.J. said, I think
1470 their intent is to try to move as many of those incumbents as they
1471 can off the band well in advance of that date.

1472 So what they are asking us to do is simply to make the
1473 necessary licensing changes that would commemorate the fees,
1474 licensees are no longer entitled to operate on the FirstNet
1475 spectrum. There is other spectrum in the 700 megahertz band that
1476 is available for them in the narrow band spectrum and so that is
1477 where they would be reassigned to.

1478 Mr. Guthrie. Okay. So my question was how was this
1479 timeline impact your ability to move forward, but since you are
1480 working that out so --

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1481 Mr. Kennedy. Yes, our suggestions and requests that have
1482 been made to the FCC are still working through the final NPRM
1483 process, but so far we believe that we are in sync in what we have
1484 discussed with them and look forward to that happening.

1485 Mr. Guthrie. Are there any other FCC proceedings or FCC
1486 actions that FirstNet needs to be resolved before you can move
1487 forward?

1488 Mr. Kennedy. Not related to spectrum relocation in the 700
1489 megahertz band.

1490 Mr. Guthrie. Okay, thanks. And also Mr. Kennedy, this is
1491 a different topic. The crux of the RFP is the ability of the
1492 winner to monetize the spectrum? Can you elaborate on the quality
1493 of service, priority and preemptive parameters for public safety
1494 traffic on the network and how this is factored into your valuation
1495 of the spectrum?

1496 Mr. Kennedy. For us the key quality of service parameters
1497 that are required by public safety to be able to operate are
1498 something that both our technical team in Boulder as well as the
1499 Public Safety Communications Research Lab have been testing of
1500 equipment for years. It is something that we consider to be table
1501 stakes for what must occur to be able to have public safety and
1502 commercial users operating on the same spectrum.

1503 And so having that ability to have preemption and to have

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1504 priority and provide that mission critical quality of service that
1505 we are looking for for public safety is something we are requiring
1506 of all offerers. Our technical team will be greatly involved in
1507 the evaluation of those proposals. It is a key thing that we have
1508 to have to make sure that this network will provide that priority
1509 and preemption whenever it is needed.

1510 Mr. Guthrie. So you have to make sure the winner is
1511 financially successful. That is what its base stability to move
1512 forward is. But also, so how does FirstNet plan to ensure that
1513 the winning bidder only gains access to the market at competitive
1514 rates? So for the sake -- I know part of the previous question
1515 was the winning bidder and they have to be financially viable to
1516 monetize the system. What about FirstNet's ability to make sure
1517 they maximize financial ability?

1518 Mr. Kennedy. Yes, as far as maximizing the bids that come
1519 in and that we receive, we believe by having an objectives based
1520 procurement that allows innovative solutions and industry to come
1521 together with the best solutions. And through competition we
1522 believe that we will make sure that public safety gets the ultimate
1523 best deal that can come forward. Competition is by far the best
1524 thing that we can have to ensure that there is not value being
1525 left on the table that is not being leveraged by public safety
1526 to get the best network possible.

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1527 Mr. Guthrie. Thank you. And I am meeting with some of my
1528 public safety people today. So I know it is important in
1529 Kentucky, it is important everywhere, and I appreciate the work
1530 you guys are doing.

1531 Mr. Kennedy. Thank you.

1532 Mr. Guthrie. And I yield back.

1533 Mr. Latta. [presiding.] Thank you. The gentleman yields
1534 back, and the chair now recognizes the gentleman from Texas for
1535 five minutes.

1536 Mr. Olson. I thank the chair, and welcome Mr. Kennedy and
1537 Mr. Furth. I am from the greater Houston area. We have seen our
1538 fair share of natural disasters, the worst disasters in American
1539 history. For example, the worst hurricane. Galveston 1900,
1540 over 6,000 people, the low end, maybe 8,000 were killed in 24
1541 hours. The worst industrial accident, Texas City 1947. A ship
1542 exploded, almost 600 people were killed. Every firefighter
1543 except for one died trying to put out that fire.

1544 A mere tropical storm, Claudette, set the American record
1545 for rainfall in a 24-hour period in 1979 in the city of Alvin,
1546 Texas. Forty three inches of rain fell within one day. I was
1547 living ten miles away from Alvin, Texas when that happened,
1548 staying up all night with my dad preparing for our first floor
1549 becoming the wading pool we never dreamed of having down below.

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1550 But those problems we face in Texas are much different than
1551 problems they face in California, North Dakota and Pennsylvania,
1552 for example. FirstNet must be able to adapt to those challenges,
1553 different challenges. It can't fail, especially in a time of
1554 crisis. In Houston we say failure is not an option.

1555 My first question to Mr. Kennedy is, in the worst case
1556 scenario how should we measure failure with regard to the RFP?
1557 What is failure? When does it fail? How do you measure that?

1558 Mr. Kennedy. As far as the network or the RFP itself?

1559 Mr. Olson. RFP itself and the network. Throw them all in
1560 there.

1561 Mr. Kennedy. Okay. From the network perspective, and I am
1562 just going to go off of your explanation on being mission critical
1563 and public safety grade. I think it is very important that
1564 everything we do is trying to focus on making sure that we can
1565 meet that public safety grade capability. What we have done with
1566 the objectives you will see that public safety grade and that
1567 reliability and resiliency are key objectives that are part of
1568 the RFP and we will be measuring what is coming in in those RFP
1569 responses.

1570 Also, it is absolutely critical as we go forward that we know
1571 that just terrestrial networks and just hardening won't solve
1572 every problem, so the network design is going to be looked at for

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1573 what kind of reliability and redundancy by having capacity that
1574 will allow us to have ongoing network capability after a disaster
1575 hits.

1576 Also, we have leveraged our Public Safety Advisory Committee
1577 to look at public safety grade and make recommendations. Your
1578 point about different parts of the country, the kinds of hardening
1579 that they need in Florida are sometimes different than what they
1580 need in Texas versus Alaska, different kinds of issues. Some
1581 parts of the country have issues with earthquakes, other parts
1582 have issues with hurricanes and flooding. And so those kind of
1583 issues really demand a different type of network infrastructure
1584 in different parts of the country.

1585 Also, it requires other ways to reconstitute a network.
1586 There are some things when we look at a tornado and a direct hit
1587 that there is no building of a cell tower that necessarily will
1588 --

1589 Mr. Olson. Joplin, like Mr. Long's district. Joplin,
1590 Missouri, direct hit. Yes.

1591 Mr. Kennedy. Joplin is a great example of that. And so you
1592 have to have other things that can reconstitute a network during
1593 that kind of very focused disaster, and that comes down to
1594 leveraging deployables. Deployable networks have been something
1595 that we have looked at both for major events, but also for response

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1596 during that kind of reconstitution of a network.

1597 There are aerial platforms and other things that are now
1598 having the ability to bring networks to where networks have been
1599 decimated very quickly, and also having the ability like we have
1600 seen with the New Jersey project to be able to look at how do we
1601 have deployable networks after a storm like a Hurricane Sandy,
1602 and how can that go ahead and reconstitute a network where a
1603 network has been wiped out.

1604 So it is not just the permanent physical infrastructure, it
1605 is also having a network and a network operations center and that
1606 design built in, so that we are able to prepare for and respond
1607 to those emergencies in every state and have assets that could
1608 actually move between states when needed to make sure that they
1609 are responding to those big events.

1610 Mr. Olson. You get all these RFPs, you look at them and you
1611 go, man, these don't hit these targets. They are short, they are
1612 falling short, doesn't handle the needs, it is a failure. What
1613 is Plan B? How do you move forward from that? Like Apollo 13,
1614 how did you bring those guys home? What is Plan B if there is
1615 a failure, proposed or viable, any plan for that or you just going
1616 to wing it after that happens?

1617 Mr. Kennedy. No, no. We certainly have considered that
1618 there can always be issues with RFPs. There could be amendments

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1619 that are issued to deal with a deficiency or something that will
1620 not work. Part of the thing we are doing right now is we are
1621 waiting for questions to come in from potential offerers.

1622 Questions will often drive to make sure whether we have hit the
1623 right targets or whether there are things or issues that would
1624 require changes.

1625 We are very open to knowing that we need to be agile and be
1626 able to respond to what comes back, and so we have left those
1627 options open. At the same point, we are trying to move with
1628 urgency to make sure that this network gets built and gets in the
1629 hands of public safety.

1630 Mr. Olson. Thank you, I yield back.

1631 Mr. Latta. Thank you. The gentleman yields back, and the
1632 chair recognizes the gentleman from southeast Ohio for five
1633 minutes.

1634 Mr. Johnson. Thank you, Mr. Chairman. And I also want to
1635 thank the panel for being with us today. I serve an area of the
1636 nation that struggles with network access and availability, rural
1637 Appalachia, so these are topics that are very much a concern to
1638 me.

1639 Mr. Kennedy, this subcommittee is working on a bill to help
1640 streamline access to rights of way so that communities will see
1641 both better broadband services and more competitors. We know the

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1642 more competition the lower the cost, the quality goes up, we know
1643 how that works. Is it safe to say that the winner of the contract
1644 is likely to need to deploy new infrastructure to satisfy the
1645 objectives of the RFP?

1646 Mr. Kennedy. First off, I encourage the efforts that you
1647 are doing because I think that will help both FirstNet and wireless
1648 providers nationwide to provide better broadband service to the
1649 entire country. I think specifically we believe that the
1650 majority of this network will be initially deployed on existing
1651 infrastructure, but there will be a need to fill in some holes
1652 which could mean some additional sites that have to be made. So
1653 it is a mixture, but a lot of it will be leveraging existing
1654 infrastructure where it already takes place with only building
1655 when there is no existing infrastructure that can serve that need.

1656 Mr. Johnson. Okay. So do you believe that streamlining
1657 access to rights of way could facilitate the deployment of the
1658 network especially in rural areas either directly or indirectly?
1659 Do you think that will help?

1660 Mr. Kennedy. Yes, I do.

1661 Mr. Johnson. Okay, great. Great. Also, Mr. Kennedy,
1662 FirstNet has established 16 key objectives which the offerers must
1663 meet in its RFP. Among the set of 16 what are some of the most
1664 important objectives FirstNet will be considering when reviewing

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1665 the submitted proposals, and can you give us any idea as to how
1666 the winning bidder will be decided? In other words, pull back
1667 the cover and give us the secret formula.

1668 Mr. Kennedy. As you know, with all open and competitive
1669 procurements there are rules and regulations in the evaluation
1670 thereof. And so from that I think it is really important that
1671 every offerer look at all 16 objectives.

1672 As you have mentioned, there are some objectives that we have
1673 talked a lot about here today, cybersecurity, looking at the
1674 public safety grade, looking at coverage, all those kinds of
1675 things that are so obvious, looking at applications and devices,
1676 but they are all important. We really want to see how each and
1677 every offerer can provide the best solution competitively across
1678 that entire gamut of the 16 objectives.

1679 Mr. Johnson. Yes.

1680 Mr. Kennedy. One of the things that we think we have done
1681 very well is those same 16 objectives have remained the same since
1682 April of 2015, and have remained virtually unchanged since
1683 September of 2014 when we put out the first 15 objectives. And
1684 it has given industry a lot of time to ask questions. It has given
1685 public safety and states a lot of time to discuss are those the
1686 right objectives and will they help meet the network that they
1687 really want to see?

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1688 So we believe that we have the right 16 objectives. We
1689 believe that industry understands what those objectives really
1690 mean. And at the same point we are not telling them how to respond
1691 individually. We are telling them to do the best that they can
1692 to meet those objectives in a cost effective and sustainable way.

1693 Mr. Johnson. Have you communicated to the offerers any idea
1694 of the weighting? I mean, are any of the objectives weighted more
1695 than others? For example, accelerated speed to market versus
1696 financial stability, or device ecosystem versus life cycle
1697 innovation? Have you got any weights in there and do they know
1698 what they are?

1699 Mr. Kennedy. Yes. There is a specific writeup in Section
1700 M of the RFP under the evaluation factors, and we really drive
1701 any offerer to read that very carefully. It is specifically
1702 written and approved by our contracting officer which tells which
1703 elements are more important than other elements.

1704 Mr. Johnson. Okay. All right, based on the input that you
1705 have received from all of the various stakeholders, have any of
1706 the objectives emerged as the main target? Is there one objective
1707 that you are focused on more than any of the others? You have
1708 probably pretty much answered that. They are all 16 pretty
1709 important.

1710 Mr. Kennedy. All 16 are very, very important to public

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1711 safety.

1712 Mr. Johnson. Okay. All right. Well, thank you. And with
1713 that I yield back, Mr. Chairman.

1714 Mr. Latta. Thank you. The gentleman yields back, and the
1715 chair now recognizes the gentleman from New York for five minutes.

1716 Mr. Collins. Thank you, Mr. Chairman. I find this
1717 interesting, a couple things, and I am going to look for a little
1718 input here only because it seems like the train has already left
1719 the station here.

1720 But I was the county executive of Erie County back from 2008
1721 through '11. The first thing I found when I came to office in
1722 New York State, in my county, Erie County, the largest upstate
1723 county, we had 22 PSAPs, 22 PSAPs in one county. Pretty much all
1724 our first responders are volunteer fire and the like. They were
1725 on using radios low band. We pretty much had standardized on 400
1726 megahertz.

1727 And the first thing I walked into was SWN, the state wireless
1728 network in New York. What a debacle. I was the one that killed
1729 it, because they were going to move everyone from 400 to 800
1730 megahertz. And I met with all the first responders and they said
1731 we don't have any money. Hey, we are still on low band. We are
1732 hanging our radios out the door as we are driving up and down hills.
1733 And we had moved to 400. They said, hey, show me the dollars.

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1734 Where are the dollars to go from 400 to 800 if it would even work?

1735 They weren't there so I pulled our county out, the largest
1736 upstate county in New York, and a month later SWN was dead in New
1737 York, because if Erie County at the far western part wouldn't
1738 participate it wasn't going to go. And I felt very good about
1739 that.

1740 So now here we are. It is five, six, seven years later
1741 talking about FirstNet, and I can't disagree with the thought
1742 process. But I would say again, maybe thank God we pulled out
1743 of the 800 megahertz they gave in New York because that would be
1744 obsolete. And, but the billions, and I do use that, weren't
1745 there. Because again, New York, especially who are all volunteer
1746 fire people, 22 PSAPs in one county. That is the way New York
1747 is. In fact, the crazy thing is the land lines go to the PSAPs
1748 and the cell phones go to a centralized one. It is insanity but
1749 that is what it is.

1750 So I guess I just kind of ask the question. Dollars and cents
1751 matter a lot. Property taxes in New York actually pay for the
1752 volunteer fire companies. We have a tax cap because we are the
1753 highest taxed and most regulated, least business-friendly state
1754 in the nation and we keep losing people, and we are now the fourth
1755 largest state, no longer the first, second or third.

1756 Tell me about the dollars and cents. If I am bidding on this

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1757 I don't know that I am going to have any customers in New York
1758 because no one has got any money. The state doesn't have any
1759 money. The counties don't have any money, and you can't -- so
1760 is that a concern? Is it a worry? Are we just charging down the
1761 road? But talk to me a little bit about if I am a bidder aren't
1762 I worried about am I going to have any customers?

1763 Mr. Kennedy. So I will answer that and then I will defer
1764 the PSAP question to David to follow-up on that. Specifically,
1765 I do believe based upon our consultation across 55 states and
1766 territories over the past year that volunteer fire and volunteer
1767 emergency medical services are eager to leverage the FirstNet
1768 network. A couple of things in the model that we have laid forward
1769 is there is not capital expenditure. There is not the hundreds
1770 of millions of dollars to lay out for infrastructure in an opt-in
1771 scenario where that is being provided. The network would be
1772 provided. They would make an individual decision by each
1773 agency, and even by a volunteer firefighter as an individual, if
1774 they would like to buy that particular cellular service at a
1775 competitive rate that would allow them and enable them to have
1776 inoperable voice, video and data communications across their own
1777 fire department and also with neighboring and other agencies, both
1778 police, fire and EMS, and even across state lines. And having
1779 that interoperability is something that we have heard even from

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1780 volunteers is a critical issue in having the ability to be able
1781 to communicate with others.

1782 One of the things when we go out to rural parts of the country
1783 we often ask, how many of you carry a cell phone today, either
1784 personal or for work? How many of you would leverage a FirstNet
1785 device if you had the ability to leverage that either paid for
1786 by your agency or not? And we have received a very favorable
1787 response.

1788 We also believe that the lower cost commercial like devices
1789 or hardened commercial devices that have the right case or other
1790 things around them will provide some very cost effective
1791 opportunities for volunteer firefighters and others to leverage
1792 in addition to the radio systems that they already have. We know
1793 that there has been a lot of investment in maintaining systems.
1794 We are a true believer that you should maintain your land mobile
1795 radio systems. They are key components of the public safety
1796 ecosystem. But at the same point we think this brings a different
1797 and new opportunity.

1798 And with time running out, I want to turn it over to David
1799 on the PSAP part of the question.

1800 Mr. Furth. Well, I was struck by what you said about 22 PSAPs
1801 in the county, and that is something that we see around the
1802 country. There are many different arrangements in terms of how

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1803 PSAPs are structured from state to state and county to county,
1804 and that is a state and a county decision. What we are trying
1805 to do as we all face the challenge of moving to Next Generation
1806 911 is to provide a set of tools of options for Erie County and
1807 for every other state and county in the country for how to
1808 configure those PSAPs with Next Generation technology and with
1809 protection for cybersecurity. It makes no sense to try to
1810 individually defend each of those 22 PSAPs.

1811 Mr. Collins. You can't defend them. You can't.

1812 Mr. Furth. Not only can you not afford it, even if you could,
1813 it wouldn't be the most effective way to do it. So in fact, the
1814 recommendations that our task force has come up --

1815 Mr. Collins. My time has run out, but just remember there
1816 are people who work in each of those 22 PSAPs. Hence, you
1817 understand the pressure of not eliminating those 22 PSAPs which
1818 I tried to do as county executive.

1819 I am going to watch this with a lot of interest. I thank
1820 you for your testimony, and you have given me also a reason to
1821 sit down with my first responders in Erie County and get some input
1822 from them, which I have not done prior to today's hearing. So
1823 thank you for bringing this up. I yield back.

1824 Mr. Latta. The gentleman's time has expired, and the chair
1825 now recognizes for five minutes the gentleman from Missouri.

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1826 Mr. Long. Thank you, Mr. Chairman. Mr. Kennedy, when
1827 explaining the payment of funds by FirstNet, or to FirstNet by
1828 the contractor, you state the minimum payments reflected in the
1829 request for proposal may be higher if driven by competition, or
1830 if the partner wants FirstNet to take on more responsibility for
1831 key functions. Could you explain that statement? And does that
1832 mean that after the contract is awarded the contractor could
1833 change the terms of its performance, do less by paying FirstNet
1834 more?

1835 Mr. Kennedy. Actually, it is geared in a different way.

1836 Mr. Long. You can pull your mike closer.

1837 Mr. Kennedy. Sure. That particular element is geared to
1838 make sure that competition could drive payments that are above
1839 the minimum, first of all, all by itself. Number two, we have
1840 laid out in the objectives what are the roles of FirstNet and what
1841 are the roles of the proposers that are offering the service.

1842 If as part of that they would like to make assumptions that
1843 FirstNet take on additional roles, they should calculate into the
1844 fact that their payment would need to be higher to cover the cost
1845 of that role. So at the end of the day it is sustainability of
1846 the overall network. There is not additional funding mechanisms
1847 from Congress that would pay for that in a change-order process,
1848 and there is also not a way to shift those responsibilities from

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1849 the contractor to FirstNet without taking that into account when
1850 they look at their overall economic offering.

1851 Mr. Long. So that has all been up front before the contract
1852 is awarded.

1853 Mr. Kennedy. Correct.

1854 Mr. Long. They can't change later.

1855 Mr. Kennedy. No, the goal is to have that all as part of
1856 that process before award.

1857 Mr. Shimkus. Okay. How did FirstNet arrive at the 15
1858 percent target for partnerships with real telecommunication
1859 companies, and does the 15 percent refer to geographic or
1860 population coverage?

1861 Mr. Kennedy. Sure. There is actually two elements with the
1862 coverage versus the 15 percent of rural infrastructure providers.
1863 So I will go through currently in the RFP at IOC2 there would be
1864 20 percent of rural coverage, IOC3 60 percent, IOC4 80 percent,
1865 IOC5 95 percent. That particular percentage is of the rural
1866 build-out milestones. So it is not necessarily just geographic,
1867 it is what milestones will actually be in that state plan to be
1868 very state specific to each part of that.

1869 The other element is we added, based upon consultation and
1870 the responses we received to the draft RFP, an additional
1871 requirement. There was no requirement in the draft RFP for a

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1872 minimum percentage to be from rural telecom or rural
1873 infrastructure as part of that build-out. We added a 15 percent
1874 minimum, to your 15 percent question, to ensure
1875 that -- -

1876 Mr. Long. Fifteen percent of what though? I am still a
1877 little confused on what --

1878 Mr. Kennedy. Yes. The 15 percent is that they are
1879 leveraging rural infrastructure for that rural build-out versus,
1880 for instance, other infrastructure or commercially available
1881 infrastructure. They are leveraging that from rural telecoms or
1882 rural infrastructure providers.

1883 Mr. Long. Okay. And I understand FirstNet's excess
1884 capacity is a key to the financial sustainability of the network.
1885 How does FirstNet plan to ensure that the winning bidder only gains
1886 access to the spectrum at a competitive rate? FirstNet shouldn't
1887 accept a lowball offering for its spectrum under any circumstances
1888 even if the proposals of other elements are strong, I wouldn't
1889 think. In other words, for the sake of FirstNet's financial
1890 stability and solvency, how do you plan to ensure that FirstNet
1891 fully monetizes its spectrum?

1892 Mr. Kennedy. The absolute best way is through competition.
1893 And in part of having that objectives based procurement is we
1894 expect to have more competition than if it was overly specific.

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1895 One of the other things is that we think by driving industry to
1896 be able to leverage how they would best deploy and leverage
1897 partners and bring together the best assets to deploy this overall
1898 network that they will have the most synergy to give public safety
1899 more of what they deserve in a broader network that will really
1900 give public safety the best deal.

1901 We believe that competition is absolutely critical to make
1902 that happen, and we also believe that going down a best value
1903 approach just looking at what is being provided as the network
1904 in addition to the financial side of the equation.

1905 Mr. Long. So how do you plan to ensure that the winning
1906 bidder only gains access to the spectrum at a competitive rate,
1907 coming back to my original question.

1908 Mr. Kennedy. So part of that is really trying to drive that
1909 we have multiple bidders, and we believe that the approach that
1910 we have taken should drive multiple bidders that will come to the
1911 table to compete with each other.

1912 Mr. Long. Okay. Thank you. Mr. Chairman, I yield back.

1913 Mr. Latta. Thank you. The gentleman yields back, and the
1914 chair now recognizes the gentleman from Florida for five minutes.

1915 Mr. Bilirakis. Thank you, Mr. Chairman, I appreciate it
1916 very much. And I want to thank both Mr. Kennedy and Mr. Furth
1917 for their testimony.

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1918 As a former chairman of the Emergency Preparedness,
1919 Response, and Communications Subcommittee under Homeland
1920 Security, this issue I follow very closely. I have reached out
1921 to our friends at Florida Highway Safety and Motor Vehicles, or
1922 the state point of contact for FirstNet, termed FloridaNet, in
1923 our state. They are excited with the current direction of the
1924 working relationship between the state and the federal entities.

1925 Mr. Kennedy, first question. It seems that with the
1926 deployment of FirstNet and the ever-growing dependency of public
1927 safety on wireless broadband, the need for interference
1928 protection and remediation will increase in importance.
1929 Chairman Wheeler recently reduced the size of the FCC's
1930 Enforcement Bureau's field presence, the function of the FCC that
1931 handles interference to public safety communications. Did the
1932 FCC or its consultants approach FirstNet to discuss the threat,
1933 if any, of downsized FCC field operations to FirstNet's operation
1934 today as well as going forward as the network expands? Again,
1935 for Mr. Kennedy.

1936 Mr. Kennedy. We have not had recent discussions that I am
1937 aware of about specific changes in the size of the workforce that
1938 is focused on that. I will be more than happy to have -- I don't
1939 know if David has any follow-up.

1940 Mr. Furth. I am not aware of whether there were contacts

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1941 with FirstNet. I can certainly find out. We can check with the
1942 Enforcement Bureau.

1943 Mr. Bilirakis. Please do so, yes. We would like to see if
1944 there were any notes or many meetings, what have you, with regard
1945 to that. I think it is so very important.

1946 Mr. Kennedy, how would you ensure that the spectrum is used
1947 primarily for public safety and not at the expense of public
1948 safety? Again, please clear this up, again the unique RFP.
1949 Clear that up for me. Are there safeguards or mechanisms in place
1950 to guide the use of the spectrum? How can we ensure that the
1951 spectrum we have set aside is used to its fullest capability, of
1952 course, knowing that this 25-year relationship will evolve over
1953 time with technology and advancements?

1954 Mr. Kennedy. We believe the incentives are aligned both for
1955 public safety and the offerer to build a network that is very
1956 robust in both coverage and in capacity. We believe that these
1957 networks are not static, that they will continue to add capacity
1958 over time. It is something we are seeing very common today with
1959 networks, is they want to leverage that very valuable spectrum
1960 as much as possible to continue to add capacity, sometimes in rural
1961 areas, certainly in highly populated areas. So we believe that
1962 the capacity needs for public safety will be met.

1963 We do believe that having the ability to have priority and

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1964 preemption across the entire network is one way to ensure during
1965 not just every day operations, but during major disasters like
1966 we discussed earlier in the hearing that those things will
1967 certainly be able to be addressed in those big emergencies due
1968 to that capacity to have priority and preemption across the entire
1969 spectrum of the network.

1970 Mr. Bilirakis. Very good. Very good. Third question for
1971 Mr. Kennedy. As you know, Florida is a large, flat state with
1972 major ports and unique public safety challenges. Can you
1973 describe how my rural constituents will benefit to the same extent
1974 as my constituents that live in the Tampa Bay area, metropolitan
1975 areas, from this public safety broadband network?

1976 Mr. Kennedy. I think rural constituents in public safety
1977 will benefit from that enhanced coverage in having the capability
1978 to have coverage where they need it and where they respond on a
1979 regular basis. One of the things we very much focused on during
1980 our data collection process and during our state consultation
1981 efforts is trying to make sure we understand where 911 responses
1982 are, where the calls are coming in from, where the public safety
1983 stations are and how they respond to those calls.

1984 So if we are looking at everywhere from where public safety
1985 sits before a call, where they respond on highways, freeways,
1986 county roads and other locations and also where the incidents are,

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1987 every state responded to that differently based upon different
1988 data that they could present and put forward.

1989 But we have actually placed all of that data into a reading
1990 room that you can access through the FirstNet website to make sure
1991 that all potential offerers understand the needs of rural
1992 constituents and understand where those calls are so that they
1993 have the ability to really plan for those needs. We also believe
1994 that having a very competitive option to be able to provide service
1995 and have that known capability for priority and preemption will
1996 ensure that public safety will want to leverage this in rural areas
1997 as well. But that additional coverage is really a huge part of
1998 that in having the public safety application ecosystem.

1999 Many rural departments are very small. If we go to very
2000 large departments that have 30- or 40,000 members, they certainly
2001 have access to unique public safety applications and tools and
2002 wireless tools today. But one of the great things about having
2003 a nationwide ecosystem is those same tools can be made available
2004 to very small rural departments and allowing them to leverage that
2005 application innovation that is occurring.

2006 Mr. Bilirakis. Very good. Sir, do you have anything else
2007 to add? Mr. Furth?

2008 Mr. Furth. No, thank you.

2009 Mr. Bilirakis. Okay, very good. Thank you very much. I

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2010 yield back, Mr. Chairman.

2011 Mr. Latta. Thank you. The gentleman yields back. And
2012 seeing no other members to ask questions, I would just like to
2013 say on behalf of the chairman of the subcommittee the gentleman
2014 from Oregon, and the ranking member the gentlelady from
2015 California, and myself, we appreciate your testimony today and
2016 for the answers you provided the subcommittee. And if there is
2017 no other business to come before the subcommittee today, we will
2018 stand adjourned.

2019 [Whereupon, at 12:07 p.m., the subcommittee was adjourned.]