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HOUSE OF REPRESENTATIVES

CONSUMER AFFAIRS COMMITTEE
PUBLIC HEARING

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HARRISBURG, PA

MAIN CAPITOL BUILDING
ROOM 60, EAST WING

WEDNESDAY, MARCH 22, 2017
9:34 A.M.

PRESENTATION ON
THE TELECOMMUNICATIONS INDUSTRY

BEFORE:
HONORABLE ROBERT GODSHALL, MAJORITY CHAIRMAN
HONORABLE BRIAN L. ELLIS
HONORABLE JOE EMRICK
HONORABLE FRANK A. FARRY
HONORABLE DOYLE HEFFLEY
HONORABLE WARREN KAMPF
HONORABLE CARL WALKER METZGAR
HONORABLE ERIC NELSON
HONORABLE TINA PICKETT
HONORABLE THOMAS QUIGLEY
HONORABLE MIKE REESE
HONORABLE MARTINA WHITE
HONORABLE THOMAS CALTAGIRONE, DEMOCRATIC CHAIRMAN
HONORABLE RYAN A. BIZZARRO
HONORABLE MARGO L. DAVIDSON
HONORABLE TINA M. DAVIS
HONORABLE MARTY FLYNN
HONORABLE ROBERT F. MATZIE
HONORABLE ED NEILSON
HONORABLE BRANDON P. NEUMAN
HONORABLE PAM SNYDER

* * * * *

Pennsylvania House of Representatives
Commonwealth of Pennsylvania
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  MAJORITY COUNSEL; MAJORITY EXECUTIVE DIRECTOR
STEPHEN BALDWIN
  MAJORITY RESEARCH ANALYST
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BRET BIGGICA
  DEMOCRATIC RESEARCH ANALYST
TIM SCOTT
  DEMOCRATIC RESEARCH ANALYST
# INDEX

TESTIFIERS

* * *

<table>
<thead>
<tr>
<th>NAME</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERRY KEEGAN</td>
<td>5</td>
</tr>
<tr>
<td>ASSISTANT VICE PRESIDENT,</td>
<td></td>
</tr>
<tr>
<td>STATE LEGISLATIVE AFFAIRS,</td>
<td></td>
</tr>
<tr>
<td>CTIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>FRANK BUZYDLOWSKI</td>
<td>35</td>
</tr>
<tr>
<td>DIRECTOR,</td>
<td></td>
</tr>
<tr>
<td>STATE GOVERNMENT RELATIONS,</td>
<td></td>
</tr>
<tr>
<td>VERIZON</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>STEVE SAMARA</td>
<td>42</td>
</tr>
<tr>
<td>PRESIDENT,</td>
<td></td>
</tr>
<tr>
<td>PA TELEPHONE ASSOCIATION</td>
<td></td>
</tr>
</tbody>
</table>

SUBMITTED WRITTEN TESTIMONY

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(See submitted written testimony and handouts online.)
MAJORITY CHAIRMAN GODSHALL: Good morning. The hour of 9:30 having arrived, I'd like to call the meeting to order. The hearing is focused on the telephone industry, both landline and wireless. And we'll also hear testimony from representatives on the local telephone companies, also called ILECs, related to Chapter 30 broadband compliance.

And the meeting today is going to be recorded and televised.

And, you know, we're not going to have introductions. We're not going to call for introductions because it's not a formal meeting as such.

And, Tom, do you have anything you want to add to it? If not, we're going to get started right away with the meeting.

And presentations, there's going to be open floor for questions from Members after each presentation. I note that while each will not be providing individual testimony, representatives of various ILECs and wireless phone companies are present, will be able to respond to Member inquiries if needed.

Our first presenter this morning is Gerry Keegan, Assistant Vice President of State Legislative Affairs for
CTIA. Gerry, it's all yours. If you want to call your
fellow members up with you at the table, it's fine.

MR. KEEGAN: Chairman, Members of the Committee,
Gerry Keegan with CTIA. CTIA is the trade association for
the wireless communications industry. Our members include
wireless carriers, everyone here, AT&T, Sprint, T-Mobile,
and Verizon, as well as handset manufacturers, Apple, LG,
HTC, Samsung, and supplier component companies like
QUALCOMM and Intel.

I want to thank you again for having me back here
this session. The last time I was here in 2015 we went
through a presentation that was similar, and I'd like to
talk first off by just addressing the state of the industry
in Pennsylvania, then go into detail about the state of the
industry nationally, and then discuss what we see on the
horizon with the future of the industry.

But before I do that, I just want to take us back
to where we were 10 years ago today, March 22nd, 2007. At
that point the top-selling phone was a flip phone. There
was no iPhone. There was no app store. There was no
android operating system. Thirty percent of wireless --

MALE SPEAKER: And they still work.

MR. KEEGAN: They are still great, yes. Only 30
percent of wireless consumers were using their device to
send and receive text messages, only 8 percent were using
them to check for email, and only 7 percent were using them to access the Internet.

In Pennsylvania back in 2007 there were about 9.6 million wireless subscribers. That equaled a wireless adoption rate of 80 percent. We go to our first slide, we'll see what has changed in that 10-year period.

Today, there are more than 12.7 million wireless subscriber connections here in Pennsylvania, equating with an adoption rate of 99 percent. When I was here in 2015, the adoption rate was 96 percent, so subscriber connections in Pennsylvania continue to grow. Over one-third of households in Pennsylvania are wireless-only, meaning they have cut the cord. They no longer have a landline or a VoIP coming into their house. Sixty-nine percent of all high-speed broadband connections in Pennsylvania are serviced by mobile providers.

There are nine service providers competing every day in this State for wireless consumers based on price, customer service, coverage, et cetera. Wireless jobs pay twice as much as the average job in Pennsylvania, and Pennsylvania ranks number 13th in app-economy jobs.

When you look at the next slide, we're not only talking about app-economy jobs but the economic impact of this industry in this State is great. There's over 144,000 jobs attributed to the wireless industry, $9.5 billion in
wages, $45 billion in economic impact. The industry is responsible for over $2.1 billion in taxes paid to the State.

If you look at the next slide, what you will see -- and you may have to advance in your presentation one -- that as wireless subscriptions have increased in Pennsylvania, they have done so nationally. There are now more than 378 million wireless subscriber connections in the United States. That equals an adoption rate of over 115 percent, meaning there are more wireless subscriber connections in the U.S. than there are population.

If you look at the next slide, you'll see that in order to keep up with continuing demand and continuing subscribership for wireless, carriers have to continue to invest in their networks. They need to continue to upgrade their networks and maintain their networks. In 2015 alone wireless carriers spent over $32 billion nationally to maintain and upgrade their networks. That number doesn't include the $41 billion that wireless companies spent in the AWS-3 spectrum option in which they paid to the U.S. Treasury. So all in all over $70 billion in 2015 alone was invested by wireless companies in this country.

The next slide you'll see that the wireless industry has become an enormous part of the U.S. economy overall. It is larger than the movie production industry.
It is now larger than the lodging industry. It is larger than the oil and gas industries. It's larger than the agricultural industry and the computer technology industry.

And how is the industry growing so large and so important to the economy? You'll see from the next slide it's because consumers are continuing to demand wireless service. In 2015 there were 9.7 trillion megabytes of data across U.S. wireless carrier networks, almost double what it was in 2014. Every category for wireless data voice increased. The only one slight decrease was in the number of text messages sent. One point nine trillion text messages were sent in 2015, a slight decline from 2014. But that doesn't mean consumers aren't using their device to message. They're just using different platforms to do so.

So there is a range of competition in this area. You no longer have to use carrier networks to message. You could use WhatsApp, you could use Twitter, you can use LinkedIn, you can use Facebook Messenger. So, again, there's fierce competition in this part of the industry.

If you go to the next slide, you'll see what we expect to see in the future. By 2020 we predicted that mobile data usage will increase six-fold to over 60 trillion megabytes of data across carrier networks. Mobile-connected devices will increase by 30 percent by
2020. Internet-of-things devices, what's called IoT in industry jargon, will be more than twice the number of connections than we have now. And those IoT connections, they're just not what you would think of as a wireless device, a phone, or a tablet. They're going to be connections to the home where you will have sensors to monitor your heating and ventilation systems to make sure nothing is in disrepair. You'll have them in your dishwasher; you'll have them in your refrigerator. You'll have them in your office buildings to make sure that, for example, the office building is using the most efficient lighting systems.

You'll have them on the roadways. When we talk about connected cars and we talk about autonomous vehicles, wireless carrier networks will be essential to the operations of those. You'll have them on our roadways, whether you have a smart parking solution where a citizen will be able to download an app to show where he or she can find the nearest parking spot instead of driving around constantly looking for one.

You'll have them on your street corner. There will be sensors in garbage bins so that the DPW can determine which garbage bins need to be picked up, when and where, instead of constantly looking to monitor the bins.

So those types of things are going to be ushered in by what
we think is going to be the next generation of wireless services.

If you go to the next slide, that next generation is what we call fifth-generation or 5G. Five-G will be five times more responsive meaning that there will be lower latency. This will usher in the arrival of using virtual reality, augmented reality in the real-world situations. It will be at least 10 times as fast -- some are predicting 100 times as fast -- as 4G networks. And it will connect over 100 times more devices than what we have now.

Looking at the next slide, you'll see that 5G will impact everyday lives: over $1.8 trillion in savings from smart grid-enabled devices being able to be put on the grid, over $305 billion in healthcare savings as we monitor better chronic diseases. Five-G applications will also allow public safety, our first responders, to more efficiently and safely attack an emergency than they can do today. And finally, as I said, automated and autonomous vehicles will lead to savings of 20,000 lives on our roadways each year.

If you look at the next slide, you'll see that 5G will also revolutionize our economy. In January 2017 Accenture, the consulting firm, put out a report that found that 5G networks will add a half-a-trillion dollars to the U.S. GDP over the next seven years. Up to 2030 there will
be $2.7 trillion in economic efficiency savings because of 5G.

If you look at the next slide, you'll see that 5G will also create jobs. Three million new jobs will be created. Those jobs will be carrier jobs; they'll be construction jobs and network engineering jobs for those who need to build and maintain the new networks. They'll also be supplier-impact jobs for those who provide equipment to the carriers in order to build the network. So, in short, 5G means jobs and economic development.

If you look at the next slide, you'll see that this has a direct economic benefits to Pennsylvania. Accenture ran a study that looked at cities within Pennsylvania and, for example, showed that for the city of Philadelphia, 5G will create nearly 15,000 new jobs, over $900 million in smart-city benefits, over $2.3 billion in GDP growth; for Pittsburgh, nearly 3,000 new jobs, over $176 million in smart-city benefits and $465 million in additional GDP; in Harrisburg, over $14 million in Smart city benefits and over $75 million in GDP growth. So again, 5G equates with jobs and economic development.

If you go to the next slide, you'll see that in order to prepare for the full deployment of 5G, which is within the next three years, we need to make sure that our networks are ready. So we have 5G trials happening
throughout the country, including here in Philadelphia where we will monitor and test before we deploy. Again, this is to ensure that what we say is actually going to happen and that the customer experience is a positive one.

In the next slide you'll see that we have to have a framework for the future in order to realize the benefits of 5G. This industry will spend over $275 billion to build out 5G networks. In order for that to happen, we will need to have three things essential for the development:

Number one is more spectrum. Spectrum is the lifeblood of this industry. If we don't have spectrum, we cannot further our networks.

Number two, we need to be able to site our infrastructure in a more efficient manner than we have today. I'll touch on this a little bit more in additional slides, but it's absolutely essential that we have streamlined processes in place to site our infrastructure.

And number three, we need sound tax policy that will allow us to invest in our infrastructure and not hinder those investments.

Now, this first issue, the spectrum issue, that is mainly a Federal Government issue, and the FCC and their sister agencies at the Federal level determine what can happen with regard to spectrum. But the other two points you all hear in this room can help us undertake,
streamlined tower-siting policy and sound tax policy to encourage investment.

Now, if you look at the next slide, what you'll see is what we mean by siting of infrastructure. In order for 5G networks to operate efficiently or to operate at all, we will need to site what we call small-cell technology. Small cells will be typically the size of pizza boxes. They will be sited on existing infrastructure, whether that be a utility pole or a streetlight. They will be able to harness the delivery of 5G more efficiently than the large towers that we know of now.

The greatest things about 5G is that we are able to use spectrum that delivers more data faster and with lower latency. One of the issues with 5G is that we are speaking in communication mode by meters as opposed to miles. So whereas a monopole large tower was able to communicate over several miles, the 5G network will require densification, and that means small cells usually typically on street corners depending on where you have carrier interaction. You may have them on one streetlamp; you may have them on two streetlamps. But that is essential for the deployment of 5G.

If you look at the next slide, you'll find that in order for us to site these small-cell facilities, we
need three things:

Number one, we need access to the public rights-of-way. There are some localities not necessarily here in Pennsylvania but in the United States that have barriers for us to enter into their markets and their rights-of-way. We need to correct that.

Number two, we need fair payment structures based on the actual and direct cost for the locality to manage its rights-of-way.

And number three, we need streamlined application processes in place so that we can efficiently site this equipment and not have it hindered by unnecessary application and delays.

So in all, as I said, 5G equals jobs, equals economic development. We need to be able to site small-cell technology not only for 5G but also to densify our networks and meet consumer demand for our 4G infrastructure.

That's all that I have, Chairman. I'd be willing to answer any questions that you may have.

MAJORITY CHAIRMAN GODSHALL: Yes, we do have some questions. Brandon?

REPRESENTATIVE NEUMAN: Thank you. You just threw a lot at us, but thank you for all this data. I really appreciate it.
Starting from the back, streamlined local zoning barriers, generally the General Assembly has not had any luck with the Supreme Court in dealing with any local zoning barriers because of our Constitution, and generally, we have been overruled. I generally vote no on those bills, but they pass the Legislature. Is there any idea how we could effectuate change in local zoning and make it constitutional?

MR. KERR: Sure. Good morning. Dave Kerr. Thank you. Dave Kerr with AT&T.

The General Assembly, led by this Committee and the Chairman, I believe it was four years ago, enacted Act 191, which was the Wireless Broadband Collocation Act. That was a good effort. It was a good bill. At the time it was really a landmark bill. This bill facilitated collocation on existing facilities, so think about a water tower, think about a building whereas one of our carriers was already on a facility to streamline the zoning process to collocate. If one carrier was on and another carrier wanted to come on, it moved it to a situation where it was by-right zoning, so that was good.

I think in Gerry's testimony we talked about the small cells, and I think we're interested in reviewing and working with you potentially on building on Act 181 to do some more of that through those efforts.
REPRESENTATIVE NEUMAN: Thank you. In terms of the $2.1 billion in State taxes paid, is that fees and taxes that the consumers are paying? How is that broken down?

MR. KEEGAN: That number doesn't include the fees and taxes that wireless consumers pay on their service.

REPRESENTATIVE NEUMAN: It does or does not?

MR. KEEGAN: It does not.

REPRESENTATIVE NEUMAN: Then what is the 2.1 million --

MR. KEEGAN: That includes corporate taxes. That includes taxes from supplier downstream efforts. That includes taxes from wages and salaries.

REPRESENTATIVE NEUMAN: Okay. And do you have a figure on how much corporate net income tax the companies are paying here in Pennsylvania?

MR. KEEGAN: I can find that out. I don't have that broken out --

REPRESENTATIVE NEUMAN: All right.

MR. KEEGAN: -- but I could look into that.

REPRESENTATIVE NEUMAN: Thank you. And I look forward to seeing the language. Has that been challenged in court, the Act 181?

MR. KERR: It has not been challenged --

REPRESENTATIVE NEUMAN: Okay.
MR. KERR: -- no.

REPRESENTATIVE NEUMAN: Thank you.

MAJORITY CHAIRMAN GODSHALL: Carl Metzgar.

REPRESENTATIVE METZGAR: Thank you, Mr. Keegan.

You laid out a national outlook on proliferation of cellular. It looks to me like this is crucial and necessary for the country. Would that be your assessment? I mean, this is really important to us at this point.

MR. KEEGAN: Yes.

REPRESENTATIVE METZGAR: Okay. Your members, do they meter data, your --

MR. KEEGAN: Do they --

REPRESENTATIVE METZGAR: Do you meter, measure data and charge your group -- do they measure it and then charge according to that measurement?

MR. KEEGAN: Charge the consumer?

REPRESENTATIVE METZGAR: Correct.

MR. KEEGAN: Each carrier has their different rate plans. There are certain carriers that have no contract plans, and it's all-you-can-eat. There are some that provide an option --

REPRESENTATIVE METZGAR: Okay.

MR. KEEGAN: -- depending if you're not a heavy user and you don't want to pay for all-you-can-eat. You can have a smaller bucket.
REPRESENTATIVE METZGAR: But some do?

MR. KEEGAN: Yes.

REPRESENTATIVE METZGAR: Okay. And then you said that, you know, you're having trouble. You want to have these -- what did you call those small-cell sites?

MR. KEEGAN: Small cells.

REPRESENTATIVE METZGAR: Okay. And so those small-cell sites, you want to be able to put those on our public rights-of-way is what you want to do?

MR. KEEGAN: Correct.

REPRESENTATIVE METZGAR: Okay. So I guess if I'm looking at this, you're saying that your program and what you provide to the public is absolutely necessary. You meter it, and now you want public rights and access to public right-of-way. I mean, that does seem to me like you're hitting almost every portion of the definition of a public utility. Do we need to start looking at you like a public utility?

MR. KEEGAN: No, I would not say so. With nine carriers competing in the market, we don't have a utility structure. We don't have a monopoly structure. Customers now with no contract plans can leave their carrier without issue, without early termination fees, et cetera.

What we are seeing is that consumers are demanding the services more and more. That's the necessity
of siting the infrastructure. It isn't because we're in a monopoly or duopoly. It isn't because we have rate of return. These folks compete every day in the marketplace for customers, and the market has set the structure of winners and losers. And --

REPRESENTATIVE METZGAR: So I guess my question then is what do you say to a landowner that whenever one of your -- you know, say that you get this ability to go on the public right-of-way and you can put up a new pole in someone's yard and, you know, that would be within the purview if you would have the rights of a public utility. So what do you say to that landowner whenever they're saying, well, who regulates them then if they can just decide to come but that pole in without any permission from me because it's in the PennDOT right-of-way so to speak?

MR. KEEGAN: Right now, what we're looking at is siting this infrastructure on existing structures, so streetlamps that are already in place --

REPRESENTATIVE METZGAR: But still, on that --

MR. KEEGAN: -- [inaudible] that are already in place.

REPRESENTATIVE METZGAR: So you're still adding to that structure I guess is my question, or you could put a new pole in if you would get that right and authority to do that.
MR. KEEGAN: Well, right now, initially what we're looking for, as I said, is to site on existing infrastructure. I don't know whether legislatively that's something we're looking at in putting up a new pole. We go through all of the zoning processes as applicable at the locality level. What we're seeing now is that in some jurisdictions that same zoning process for a monopole, for a single pole, it's very high. It is being used to site small-cell infrastructure, which we're talking about a pizza box. So --

REPRESENTATIVE METZGAR: Understood, but that's not what I'm asking, though. I'm asking about, you know, your ability to go on and either -- onto the public right-of-way and do that into which most people consider their yard and they don't realize that that's actually PennDOT's right-of-way, but you could conceivably do that.

My issue is that you're asking for the benefit without the burden of being a public utility, and so that's I guess, you know, my concern representing my constituents is that if you're asking for that and yet not wanting any of the burden of being that public utility, you know, I think that we might have a problem with that.

The follow-up to that is are you aware of any provisioning of fiber to cell sites using public utility status to do that? Is that something that your members do
on a frequent basis?

    MR. KEEGAN: I don't know if any of our members
do so.

    REPRESENTATIVE METZGAR: They don't contract with
anyone to do that or --

    MR. KEEGAN: Not to my knowledge. I don't know.

    REPRESENTATIVE METZGAR: Last question, you
mentioned that you needed more spectrum, and that doesn't
have anything to do with us. But my question to you is, is
that spectrum finite?

    MR. KEEGAN: Yes.

    REPRESENTATIVE METZGAR: Okay. And so if we
continue to move all of our data from a wireline to a
wireless system, will we eventually run out of spectrum?

    MR. KEEGAN: There is some concern. There's ways
of looking at engineering so that you can dice the spectrum
up more efficiently and use it. There's also, you know,
some entities that may not be using spectrum most
efficiently, and that's what the Federal Government is
looking at, the SEC is looking at, the Department of
Commerce is looking at is how do we make sure that if
entities have rights to spectrum they use them most
efficiently, and if not, then let's auction them off to
wireless companies.

    REPRESENTATIVE METZGAR: So I guess maybe I need
to restate the question. If we move all data transmission
to wireless, will we run out of spectrum?

MR. KEEGAN: Not necessarily.

REPRESENTATIVE METZGAR: Okay. Thank you.

MAJORITY CHAIRMAN GODSHALL: Pam Snyder.

REPRESENTATIVE SNYDER: Thank you, Mr. Chairman.

And thank you for your testimony.

You did give us a lot of information today, and I
would like to follow up a little bit. The small cells, you
know, I'm listening to you talk about the 5G and how
important that is, and I do have all of my devices here and
I do want them to be working whenever I pick them up, okay,
but I have entire school districts in my district that
would kill for 1G. These small cells, will they help with
that?

And I'm listening to Representative Metzgar's
questions, you know, and it looks real nice here, you know,
to attach them to streetlights. I've got a lot of areas in
my district, they don't have streetlights. So, you know, I
guess my question is twofold. Number one, what's the
industry doing about the folks that can't even have cell
phone service in their area? And what do we do in rural
America to attain 5G when we maybe don't have the ability
to have streetlights through every community?

MR. KEEGAN: On the first question, the networks
for the industry change. You know, I can probably say three years ago, two years ago when I was here, additional cell sites have been added. Service coverage has improved. And that's something that we do have a challenge with as an industry without a doubt, whether it's topography, whether it's change of seasons that challenges the bandwidth, the radio waves from reaching certain locations.

But this industry is not stagnant. What you see today with regard to coverage is not what's going to be happening a year or two from now. Carriers and their partners continuously add cell sites.

On the rural side with 5G, there's some trials that are being undertaken by some companies to determine the best way to get 4G, 5G out to rural areas. It's probably not going to be the small-cell infrastructure that I've shown you in those pictures. It may be similar nodes using different technology to cover greater areas, but those trials and tests are underway. It's happened, I believe, over the last year or so. I've not seen any results from those, but there are definitely members of my organization, my association that are looking at this and looking at ways that we can expand 4G and 5G to rural communities.

REPRESENTATIVE SNYDER: So what might I be able to go back after this hearing and tell my constituents? I
have eight school districts in my district -- it's very large geographically -- and I probably have three school districts that are challenged with no cell phone service. What can I go back and tell those folks when they might be able to expect that in this century?

MR. KEEGAN: I would have to look at where you represent the area that you represent and determine where the buildout has been in that area. In the short term, I think you can tell your constituents that we are looking at ways to expand 4G and 5G to rural communities. As I said, I'm not going to promise that it's going to be the same way that we've outlined here. But there are companies that are looking at it, member companies of mine who are doing trials, who are doing tests, who hope that they can deploy similarly along the same timeline as 5G small cells over the next three years. That would be something that I could tell you to tell your constituents.

REPRESENTATIVE SNYDER: Okay. Thank you. Thank you, Mr. Chairman.

MAJORITY CHAIRMAN GODSHALL: Rob Matzie.

REPRESENTATIVE MATZIE: Thank you, Mr. Chairman. Thank you for your testimony.

It's interesting in the last 24 hours I've heard a lot of testimony in a couple of hearings yesterday. In a transportation hearing we were talking about automated
vehicles, and today, we're talking about the rollout and
the continuation of -- the buildout I should say of
wireless across the Nation. Is it fair to say, considering
the new Administration's love of technology specifically as
it relates to the wireless technology, that the Federal
Government is on board, has made a statement or a case that
the desire is for more spectrum as you asked for in this
testimony today?

MR. KEEGAN: Yes. I think two parts to that.
The first part is that the FCC under the previous
administration acknowledged the importance of 5G. And they
did so by providing for high bandwidth spectrum, which is
essential to 5G deployment. And that was a huge victory,
and they expedited that for the industry in order to begin
these trials.

On the second phase the Administration, whether
it's the previous Administration or the current
Administration, recognized the importance of more spectrum,
more spectrum being commercially provided to wireless
carriers. It is just a problem of identifying the spectrum
that will be brought to market.

So we're currently undergoing a spectrum auction
now, which was an incentive auction to allow broadcasters
who may be underutilizing or not using their spectrum to
auction that off. That auction process has ended, but
there are still down-payments and other processes that need to happen.

The second area that I think that Congress is looking at is whether there are agencies within the Federal Government that are also underutilizing or not using spectrum efficiently and whether they can identify those agencies and encourage them to bring that spectrum to auction for commercial use.

REPRESENTATIVE MATZIE: But before I ask the question, from a layman's perspective specifically as it relates to people watching, explain spectrum for folks so they understand what exactly that means.

MR. KEEGAN: Sure. So spectrum allows for the radio waves to be sent and to be able to communicate, whether voice or data traffic, onto carriers' network. It is basically what I would like to say the lanes on a highway. So if you don't have a lot of spectrum, you're on a two-lane highway. And if you're on a two-lane highway in Philadelphia or Pittsburgh, you're going to be stuck in traffic. What we're trying to do is expand those lanes to bring more spectrum to market. The more spectrum that we have, the more lanes of traffic we can open up in order to meet our consumers' needs, whether data or voice.

REPRESENTATIVE MATZIE: So based on your previous answer relative to looking at the spectrum, it's my
understanding the Federal Government actually has some
radio waves reserved or are basically on hold to --

    MR. KEEGAN: Correct.

    REPRESENTATIVE MATZIE: -- you know, and this is
obviously before wireless technology even entered -- see,
I'm an old radio guy that worked for a daylight radio
station that we powered off at night and played the
National Anthem and powered on again the next morning at
6:00 a.m. So I get the radio wave aspect of it all, but is
that the case? Is that what they're looking at, some of
the stuff that they've even had reserved?

    MR. KEEGAN: Yes.

    REPRESENTATIVE MATZIE: Okay.

    MR. KEEGAN: Yes.

    REPRESENTATIVE MATZIE: You know, I think, quite
frankly, from a consumer's perspective and I think
obviously in the business world there's that level of
expectation. And the level of expectation is when you pick
up your telephone and you flip on Twitter and you go online
and you want to see what folks are posting or you're ready
to post yourself that it's going to work and have that
ability and have that access. So, you know, I look forward
to seeing how this all rolls out and specifically as it
relates to the technology.

    And I think Representative Snyder, when we've had
some hearings down in her district that, you know, rural America, you know, I think is really something that needs a focus from the industry, whether it's small-cell technology and advancing that or some other technology to allow for those folks to have that access because it's difficult as a policymaker to put forth policies to help the industry when we still have constituents that are being deprived from the ability to have that access. So that's the difficult challenge we face I think as policymakers.

But we appreciate your testimony and look forward to continuing working with you and see how the industry continues to thrive. So thank you.

MAJORITY CHAIRMAN GODSHALL: Representative Reese.

REPRESENTATIVE REESE: Thank you, Mr. Chairman. And thank you for your testimony.

So if the General Assembly expedites your request dealing with zoning for the small cells, from your perspective, where do you see that investment going? Do you see it going towards Pittsburgh and Philadelphia or do you see it going to more rural areas like I represent? Can you talk about that for a moment?

MR. KEEGAN: Sure. I'll be perfectly upfront with you here. The first part of 5G rollout, small-cell technology rollout is going to occur in the urban centers
and the suburban areas. That is where we are seeing the 
most data traffic, and we need to densify our networks in 
order to keep up with that immediately. 

And then one aspect that we would have if we had 
more efficient siting and application processes is that 
there's a bucket of money with each company, cap X, that 
they look out for each State. And they determine they're 
going to invest this much in this State and that's what 
they can afford to invest. The more that we have to spend 
on dealing with siting processes and application fees and 
attorney's fees and court costs is less money that we can 
actually put in our networks. 

And how we see this being a more efficient use of 
our capital is the less that we have to spend on those 
processes, the more that we can spend in the rural 
communities, the more they will get of that money. It's 
just how capital expenditures work within the companies. 

REPRESENTATIVE REESE: So if we go down this road 
with this industry, I mean, I guess what I'm hearing -- and 
I understand that that investment in the more urban areas 
is necessary. I understand that. And I understand it's 
important to our economy. But the folks that I represent 
might not see that benefit or Representative Snyder's folks 
might not see that benefit any time in the near future. Is 
that a fair statement?
MR. KEEGAN: Well, as I said earlier, we are looking at testing trials to determine the best way to deliver advanced mobile broadband services in rural communities. That is something that our companies are looking at. I can't promise you that it's going to be delivered by X point or X date, but it is something that has been going on over the last year. Again, it's not going to be the pizza box that I showed you on a lamppost. There may be something else that is being done. But it's definitely something that the industry is taking seriously and is looking at.

REPRESENTATIVE REESE: Thank you.

MAJORITY CHAIRMAN GODSHALL: Okay. We're running a little behind, you know. Ed.

REPRESENTATIVE NEILSON: Thank you, Mr. Chairman. I'll try and be quick.

I'm from Philadelphia so we know we're going to get it first. And something we did when we had the cable companies come through Philadelphia and they wanted to do infrastructure, we made them go into communities that nobody wanted to go into. Would we be justified as part of this legislation that we're going to create here that we make certain that some of these other communities that the Reps talked about today make certain that they are part of that legislation and you must invest in them? Because you
said you're going to save a lot of money on us. So if we say, okay, well, 20 percent of the infrastructure that you do must be in there, would you be open to us mandating that within the legislation for your rights-of-way?

MR. KEEGAN: Well, one of the challenges that we have is not similar to a fixed broadband connection in rural communities. There's other issues that may be involved like topography, like change of seasons. So there are challenges there.

REPRESENTATIVE NEILSON: But to make no effort -- we're trying to avoid a no-effort here because what we're saying is hey, look, if we have anything left over from Philadelphia, Pittsburgh, and all, we'll take care of you. We're looking at that lack of effort. If we mandate that you must hit some of these areas first prior to doing a Philadelphia buildout and stuff like that, I mean, I'm just thinking out loud so we can all talk about this because I think that's something that we need to move forward.

And I don't want to take -- the Chairman is going to yell at me -- I won't take up too much time.

State highways, State roads, State infrastructure that we've been paying for for a long time, you're going to make a $275 billion investment in Pennsylvania. You have to do that, as you said, because you're running out of room. And eventually the end-user is going to pay for
that. Do you think that the State should be compensated for putting these on our State infrastructures that the taxpayers pay for, say, our turnpike and all our poling along the turnpike? What kind of fair compensation do you think the Commonwealth should get for allowing your equipment to be in our rights-of-way? I mean, do you have some kind of structures that you are going to help us propose so these smaller communities in the Commonwealth can be compensated?

MR. KEEGAN: For siting within the public right-of-way we have no problem paying for application fees, we have no problem paying for rental fees, as long as it is the direct and actual cost for managing that right-of-way. What we don't want to be seen as is, okay, here's a new player in the marketplace and they're wireless carriers; let's unfairly tax them; let's unfairly adopt fees against them.

So, again, in the public rights-of-way -- and I don't know, your State law may have specific, you know, provisions with regard to the turnpike and the Department of Transportation areas. And I don't know if we're going to be looking at those areas immediately. But we would have no problem with siting within the public rights-of-way to pay our fair share.

REPRESENTATIVE NEILSON: Thank you today for your
testimony. I have nothing further, Mr. Chairman.

MAJORITY CHAIRMAN GODSHALL: Thank you. We have one final question, Chairman Caltagirone.

DEMOCRATIC CHAIRMAN CALTAGIRONE: I'm curious about your security because I hope we have something in place. And add onto that, if something were to interrupt the systems, is there any kind of backup that you may have?

MR. KEEGAN: Sure. So cybersecurity is an issue that we take important at CTIA and within the wireless industry. We have a dedicated cybersecurity working group that operates out of CTIA with all of the major wireless carriers, regional carriers, equipment manufacturers, handset manufacturers that participate in that working group. We just met last Thursday and Friday in Washington to discuss the latest issues that are out there.

One thing about wireless networks in the United States is that they are some of the most protected networks that there are. When you look at cyber attacks on wireless networks compared to a wired broadband fixed network, it's dramatically 100-fold lower than what you see in those areas. So our networks are secure. As I said, we have dedicated personnel at CTIA within all of the companies that work to ensure that those networks are protected and to examine any of the latest threats to the networks.

DEMOCRATIC CHAIRMAN CALTAGIRONE: Do you have a
backup, though, if something happens, if something's happened or there's a cyber attack or, you know, with what's going on with North Korea --

MR. KEEGAN: Sure, sure.

DEMOCRATIC CHAIRMAN CALTAGIRONE: -- and everything else --

MR. KEEGAN: Yes. We have resiliency plans in place. CTIA has a resiliency plan that all of the major carriers and the regional carriers sign onto to ensure that there are backups, to ensure that if one part of the network goes down, it doesn't bring down the entire network. And CTIA certifies carriers' network to ensure that they are in line with those resiliency plans.

DEMOCRATIC CHAIRMAN CALTAGIRONE: Thank you.

MAJORITY CHAIRMAN GODSHALL: Thank you very much.

MR. KEEGAN: Thank you.

MAJORITY CHAIRMAN GODSHALL: I think all this might mean I'm going to get more emails than I do now, which doesn't help me. And I'd sure as heck like to say something about the form emails. You know, I'd like to see them eliminated altogether. When some company says, hey, give us your name, we'll send out an email in your name, which is becoming more and more prevalent and sometimes 50, 60 of those, you know. It's not a pleasant thing when you're on the receiving end.
MR. KEEGAN: I agree.

MAJORITY CHAIRMAN GODSHALL: So thank you.

MR. KEEGAN: Thank you.

MAJORITY CHAIRMAN GODSHALL: Thank you very much for your testimony.

I'd like to call the next two presenters, who will be Steve Samara, President of the Pennsylvania Telephone Association; and Frank Buzydowski, Director of State Government Relations for Verizon.

And if you can summarize to some degree your testimony, I would appreciate it. And we want to make sure we have time for questions before we run out of time. So, gentlemen, the microphone is yours.

MR. BUZYDLOWSKI: Good morning, Chairman Godshall, Chairman Caltagirone, and Members of the House Consumer Affairs Committee. My name is Frank Buzydowski, and I am the Director of State Government Relations for Verizon in Pennsylvania. In that capacity, I deal with the General Assembly on all matters relating to Verizon, landline, wireless, and Internet, representing all Verizon corporate entities. I also advocate for our companies to every agency of the executive branch of this Commonwealth.

I've been with Verizon and its predecessor companies, Bell Pennsylvania and Bell Atlantic, for over 30 years, spending the last 23 years in State Government
Affairs. I am very proud that my career has allowed me to stay so long with an organization that has such a wide national and international reach and yet has such a rich history in our State that reaches into the very fiber of our local communities.

Please allow me to share some facts and figures about us. Verizon has over 8,000 employees and over 38,000 shareholders living in our Commonwealth. Our company pays over a quarter-billion dollars annually to approximately 20,000 retirees living here. We contribute over $320 million annually on health care for our employees and retirees living in this Commonwealth. We operate thousands of buildings and locations throughout Pennsylvania, including landlines, central offices, and remote terminals, wireless towers, and small-cell sites about which you heard a lot just a few minutes ago. And this is something of which I'm especially proud: We contribute over $1,400,000 annually to approximately 1,300 charities and civic organizations in this State.

Throughout my tenure working with Chairman Godshall and you, the Members of this Committee and staff, the most important legislative and regulatory issues impacting my companies and our industry have come before the Consumer Affairs Committee. Since I've been your lobbyist on the Hill, you have passed Representative
Adolph's legislation, House Bill 30, which updated Chapter 30 of the Public Utility Code; Senate Bill 1000, exempting the Internet from State Government regulation; and Senate Bill 1345, the Wireless Broadband Collocation Act, which partially streamlined the process for deploying more cellular service throughout Pennsylvania and which to my colleague David Kerr referred in the last panel, his testimony.

This session you will likely take up House Bill 284, Representative Matt Baker's bill, to change the way that Pennsylvania's One Call, also known as Call Before You Dig is administered. And I just saw, Mr. Chairman, that you've scheduled a public hearing on that subject in April. And I predict that this Committee will see many other issues this session that will affect Verizon such as the 5G small-cell deployment about which we heard earlier.

Looking in the rearview mirror, it's amazing how much things have changed in such a short period of time. When Chapter 30 was last updated with the enactment of House Bill 30 in 2004, there were no smartphones, no iPads, no tablets, no Facebook, no Twitter. Cable telephony was in its infancy. Voiceover IP or Internet protocol services like Skype, Vonage, and Magic Jack were barely heard of. And not many people would have imagined giving up a landline altogether in favor of just using a cell phone.
Today, it is difficult to even remember a time when we did not have all those options at our fingertips, and statistics show that consumers continue to abandon traditional landlines in favor of the wide array of sophisticated services, devices, and networks we now have to choose from.

Allow me to share with you a few statistics, and I will summarize, Mr. Chairman, because some of these you've seen in the last testimony. In 1999, Pennsylvania's ILECs, the incumbent local exchange carriers, served 8.5 million landlines, and your constituents had very few options for service other than the incumbent local exchange carriers. Yet by the end of 2015, the ILECs served just a little over 3 million of those lines. And you see the bar graph that is in my testimony with the decreasing numbers.

As of June 2016, 49.3 percent of the households in the United States were wireless only. They've eliminated landline services entirely from their households. Another 15 percent considered a cell phone to be their primary line. So that means two-thirds of households now rely only or primarily on mobile phones. By contrast, only 7.2 percent of households are landline-only, and that portion continues to shrink.

And most of this cord-cutting has occurred over the last decade. In 2003, only 3 percent of households
were wireless only. The dramatic change in consumer preference for wireless technology is illustrated in the graph before you, the bar graph again between landline and wireless-only households.

Even those customers who continue to use landlines have plenty of choices besides Verizon. The FCC reports that as of December of 2015 in Pennsylvania competitive local exchange providers, or CLECs, and interconnected VoIP providers, mostly the cable companies, serve 47 percent of the landlines and a full 55 percent of business landlines.

With wireless lines in the mix, the picture for the incumbent local exchange carriers is even more dramatic. All of Pennsylvania's incumbent telephone companies taken together, that would be Verizon and all the companies that Steve represents, serve only 16 percent of the State's landlines today. And you'll see that on the pie chart that's before you. Clearly, consumers have chosen to abandon regulated services in droves. The monopoly era of landline telephone is a thing of the distant past.

Now, I would like to relate all of that to Chapter 30. We should never lose sight of the fact that Chapter 30 has always been about making Pennsylvania a technologically advanced State in which to live and work.
Under that law, Verizon has invested billions of its own dollars in this Commonwealth, bringing broadband technology to all urban, suburban, and rural communities and providing residents and businesses in those communities with high-speed Internet service. The modern broadband infrastructure we created supports the data-driven economy that raises productivity and creates jobs, and we did all that without one dime of government money.

We at Verizon have been 100 percent compliant with the mandates in Chapter 30 since the fall of 2015, finishing our deployments several months ahead of schedule. Since that time, we have made high-speed Internet access available to all of our customers in Pennsylvania, including rural Pennsylvania. To meet our obligation, we deployed a modern array of services that includes high-speed Internet service; HSI, also known as DSL; Fios; 4G LTE fixed wireless; and for a very small percentage of our customers, satellite Internet service, which we only use for that rare customer who is too far from an LTE cell tower or a copper line that is able to carry the high-speed Internet signal.

Today, any Verizon customer can call 1-800-Verizon or go online and order Internet service for his or her specific location. To accomplish that feat, we invested over $16 billion of private capital and deployed
over 4.5 million miles of fiber-optic cable, made our
interoffice facilities 100 percent fiber-optic, and
deployed fiber to connector central switching offices to
over 2,500 remote terminals that bring high-speed Internet
technology to your communities, including rural
communities.

Verizon fiber-optic lines also provide the
backhaul to bring 4G LTE wireless high-speed Internet
service to Pennsylvania. We deployed 190 4G LTE cell
towers in rural Pennsylvania, 190 in rural PA, and of
course many others throughout the State. Even after
meeting our obligations under Chapter 30, last year alone
we invested over $380 million in our network.

The other key point I ask you to never lose sight
of is as Chapter 30 was negotiated in a time when everybody
had a landline and nobody even imagined that there would
come a day when everyone didn't have a landline. So when I
was asked to include in my testimony what our biggest
Chapter 30 challenge is, the answer is clear: managing
change, change from a time when virtually every household,
urban, suburban, and rural, subscribed to the landline
public telephone network to the modern world with the vast
array of telecommunications choices that we have today.

I was also asked to address our compliance with
Chapter 30. Our network modernization plan was filed with
and approved by the Public Utility Commission. And I'm very proud to state that Verizon is 100 percent in compliance with that plan.

I'd like to conclude my remarks by stating that in this complex new world of communications, Verizon's goal and my personal goal is to provide excellent service to our customers, your constituents. And let me add that you, the Members of this Committee, and all Members of the General Assembly and your respective staff can contact me any time that you or a constituent has a question about high-speed Internet service or any Verizon service.

On behalf of the 67,000 Verizon employees, retirees, and shareholders who reside in this great Commonwealth, I thank you for this opportunity to appear before you, and I'd be happy to answer any questions that you may have after Steve and I have concluded our testimony.

MAJORITY CHAIRMAN GODSHALL: Okay. Steve, it's up to you.

MR. SAMARA: Thank you, Chairman Godshall, Chairman Caltagirone. Good morning, returning and new Members of the House Consumer Affairs Committee. I appreciate the opportunity to be here before you again. New Members are in for a wild ride if you haven't figured that out already. But we welcome you and look forward to
working with you going forward.

I'm Steve Samara. I'm President of the Pennsylvania Telephone Association. I want to take just a minute or two to talk about the PTA and then focus in on the broadband questions that were posed in the memo that was sent out to us because I know we want to talk about broadband deployment here in Pennsylvania.

My member companies serve rural Pennsylvania. They range in size from several hundred access lines to hundreds of thousands of access lines. But there are a couple unique characteristics about my member companies, which you should be aware of from a public policy perspective. First of all, my member companies are carriers of last resort. They are COLR companies, which means they have to serve everyone in their service territories with landline service. They do not get to pick and choose where they want to serve. This is not a model designed to maximize profitability. It is a model designed to make sure that everyone in Pennsylvania has access to affordable voice service. As we'll see, as we talk about broadband, you need that network, that basic landline network to provide all the bells and whistles of broadband services as well.

As COLR providers, we're fully regulated by the Pennsylvania Public Utility Commission. We file reports
with the PUC. We pay assessments to help fund the PUC's budget along with our colleague utilities that are also regulated, and we respond to customer and constituent complaints about our service to the Public Utility Commission.

Another key characteristic of my member companies is self-evident in the RLEC designation, our Rural Local Exchange Carrier, which is rural. My member companies, regardless of size, serve rural Pennsylvania. My larger member companies just serve more square miles of rural Pennsylvania than my smaller members do.

It's not easy serving rural Pennsylvania. It's not inexpensive serving rural Pennsylvania, but my member companies are good at it. Not to boast, but they're good at doing it. Some have served this Commonwealth for a century or more and, you know, I welcome and invite you to come and meet with any of those member companies at any time.

Finally, the PTA is proud to be a resource for this Committee, for the staff. We are very good at responding to inquiries from this Committee. We do have several events throughout the year that we will invite you to, small company committee meetings, spring conference, fall conference, annual convention in Hershey. It's good for you, I think, to come out and rub elbows with the folks
who are climbing the polls, who are out there providing the service instead of just listening to a paid spokesman, which I am, to tell you about the industry. I hope I serve a role. I'm still here; I guess I do. But it's nice for you guys to get out and meet the people who are actually out there working on the lines.

Finally, any constituent inquiries you have about services which my member companies offer I will offer Buzz as well for his territories. We take pride in the fact that we're responsive to inquiries that your constituents may have about our services. If you call Buzz's cell phone, he will give you specific directions that if it's a constituent inquiry, here's what you do. I'll give you his cell phone number in a minute so you can reach out to him whenever you have a problem. But I think both Buzz and I have been around here long enough that we pride ourselves in our ability to answer constituent inquiries that you folks may have with his company or my member companies.

So on to broadband. There are a couple of broadband deployment questions that I want to address, and obviously we want to answer any questions you may have today or going forward. How is Chapter 30 compliance evaluated? As Buzz mentioned, all of the folks, all the companies that fell under Chapter 30, Act 183 of 2004, were required to file network modernization plans, NMPs, with
These are substantive documents. I mentioned in my testimony that they are competitive in nature. They're highly proprietary in nature, and I don't mention that for any other reason than to tell you and press upon you that this is not we're 25 percent done, check the box, and hand it over to the PUC and go on about your business. They are substantive documents. They are specific documents. They talk about what we've done as far as deploying broadband in our service territories.

Also Act 183 included provisions which are intentionally punitive in nature, which is if you didn't meet those broadband requirements, you're required to refund money to customers if you didn't get there, also something the PUC is involved with. And provisions of that process are elucidated in Act 183.

And finally, the PUC is accepting complaints about broadband service. So the impression I want to leave upon you is that this isn't something that we've done under the cover of darkness. We have all been involved in Act 183, Verizon and my member companies, in getting 1.544 meg out to everyone universally and have that service available to everyone by a date certain. My smaller member companies, the end date was 2008. My larger member companies are 2013, and I know Buzz's Verizon was 2015. So
we take pride in meeting that.

The second question was what funding do RLECs receive to deploy broadband? There's no state-specific fund devoted solely to broadband deployment. The Pennsylvania Universal Service Fund indirectly helps in broadband deployment by keeping the traditional landline network viable in a good spot you can get all the bells and whistles of broadband. I know this Committee heard from several testifiers in Waynesburg last summer that you need the Pennsylvania Universal Service Fund to keep the traditional network there so you can get all the bells and whistles. And that is something I think we should focus on going forward because there is no State-specific fund to deploy broadband here.

On the Federal level you probably heard about the Connect America Fund, CAF fund. That is something that the FCC started back in 2011. It's still running through the process of deciding who gets the money and how they get it, but there has been, obviously, some serious money devoted to Pennsylvania to get increased broadband speed out to the rural parts of Pennsylvania.

I'd like to tell you it is a godsend that it gets 10 meg everywhere, but it doesn't. There were conditions put on that money by the FCC. There was a model that the FCC uses to dictate who gets the money, how much they get,
and how that money is to be spent. It's different from my larger member companies than it is for my smaller member companies. You don't get money for extremely high-cost areas, which seems kind of crazy because that's where you want to get, but you don't get money for those extremely high-cost areas. You don't get money for low-cost areas that aren't economic to serve. You don't get money if there is one competitor in the area providing service. So there's lots of conditions on that. So while the CAF has been helpful in getting 10.1 out to a variety of areas that may or may not have gotten it, you know, it's not the answer to everyone's prayers.

And I would tell you that 10.1 is a number that the FCC has put on what we need now. It is not a magic number. It is magic in the sense that the FCC has decided that's the number that you need to hit to get the money but it's not a magic number. Quite frankly, a lot of my member companies are offering 10.1 throughout their service territories and take rates for that service that are very low honestly. So that's a problem.

For my smaller member companies, they had by November 1st of last year a decision to make on how they wanted to receive CAF money. Some of them chose the Connect America Fund model or the A-CAM model to get that money and deploy a certain amount of speed to a certain
amount of areas. Some chose to stay with the way they routinely receive money from the Universal Service Fund at the Federal level. In either case this is not found money. This is not new money that is sent to companies where they say do your traditional service and here’s a pot of money where you can do broadband as well. The FCC has made a conscious decision to move money out of the traditional landline model and move it to broadband. So I don't want anyone to get the impression that all of a sudden there's a new pot of money that we can use to start funding broadband. That's just simply not the case.

In addition to CAF, a lot of my member companies have used Rural Utilities Service money, which is out of the U.S. Department of Agriculture. Over the years, we have taken advantage of grants and loans from RUS to help deploy. And this goes back decades so this was just to maintain the traditional landline network and now to do broadband. There's another round of funding coming up through RUS so we have a speaker scheduled to speak to our small company committee meeting in the next couple months to talk about how we can avail ourselves of that money. So we're always looking at other options and ways to get increased speeds to the rural corners of Pennsylvania.

Challenges to continue to broadband deployment, we faced a lot of challenges as RLECs since 2011, since the
FCC's CAF order, ICC order. We're receiving significantly less money to keep and maintain the traditional landline network up and running, so we have to do more with less, which is part of the reason that we introduced House Bill 1417 last year was to keep the Pennsylvania Universal Service Fund intact so we could continue to do that in light of all the changes at the Federal level.

There was also a provision in there, which I know, Representative Snyder, you and I talked about a couple times, to have the PUC take a look at what we need to do for increased broadband speeds in Pennsylvania, whether the PaUSF could be used as a mechanism to get support out for those types of activities.

We continue to explore alternatives to help us do that and push the broadband out as far as we can, but it's tough when you are essentially a provider of last resort for landline service and a provider of last resort for broadband service under Act 183.

So we have some challenges going forward. We look forward to working with you on all those challenges. And Buzz and I are happy to answer any questions you might have. Thank you, Chairman.

MAJORITY CHAIRMAN GODSHALL: Thank you, Steve.

The first question is from Representative Neilson.
REPRESENTATIVE NELSON: Thank you, Mr. Chairman.
Thank you, gentlemen, for your testimony.

My question is a blend between each of you as Frank or Buzz. I appreciate the use of Buzz because I was really struggling with the pronunciation of that last name.

MR. BUZYDLOWSKI: That's quite all right.

REPRESENTATIVE NELSON: In Westmoreland County we seem to struggle with our more rural areas as it relates to Internet speed. And particularly in your testimony as you say that high-speed access available and, you know, in your testimony you were sharing a little bit more about the true difficulties of the speed. Is it that the definition of high-speed Internet has lagged behind the reality particularly with listening to constituents who are having significant upload issues? Our schools have converted to laptops, and our rural students have significant difficulty. It's easier to download, but it is terribly difficult to upload. And so though it's a statement that there's high-speed, it does not seem to be keeping pace with the needs, even the educational needs.

MR. BUZYDLOWSKI: Representative, that's an excellent question, and I think it goes to the nub of, you know, the issues in rural PA. Speed in most cases is a function of distance meaning that if, for instance -- first of all, if you're in Verizon territory but the same I think
would go for Steve's member companies' territories because
I think -- I don't know if it's self-evident or if
everybody realizes that, unlike the previous panel that was
on, we're wireless. We all cross each other's -- there are
no boundaries and we compete with one another. On the
landline side, it's a vestige of the Communications Act of
1934. You know, we're divided into territories. So
Verizon landline has a boundary before we get to one of
Steve's member companies.

I think the same holds true for all of us. If
it's a landline product such as DSL, it's over a copper
line and the signal degenerates, as any electrical signal
does with distance. So if you're right next to a central
office, you might be able to get a very high speed, but if
you're 18,000 feet, which is the max from our office, we
have to put in a remote terminal, and then we get another
18,000 feet and so on and so forth. But when you get
toward the end of that, you're going to get 1.544 megabits
per second. That's the statutory minimum in Pennsylvania.

And when the law was first passed -- and that's
before my time in 1994 -- that speed was unheard of. And
also, we're the only State that has that mandate and that
minimum speed. People couldn't imagine what you'd do with
1.5 megabits but it sounded like a good number, and that's
what DSL could provide and off we went.
Since that time you've had -- and I won't repeat all the previous testimony. I think, you know, everybody realizes what the demand is. And that's why we're looking at densification on the wireless side. And that's one of the reasons that we at Verizon -- and we're fortunate that we have both wireless and wireline -- went to wireless solutions and especially in rural Pennsylvania. We can get up to 12 megs out of a fixed wireless product. So we have a tower and we have 4G LTE and we can provide those speeds. But again, you have to be within the reach of that tower, and then we have to have another tower to provide the service and so on and so forth.

So we are able to meet those speeds but technology, as I think is always the case, is always going to outpace what the government can possibly predict. So we find ourselves in the situation today where the kids aren't just doing homework, we're also watching Netflix. And, you know, if you're getting 1.54 megabits per second and you have a couple kids watching Netflix and another couple kids doing their homework and you're online, there's competition for that bandwidth that was explained earlier. And --

MAJORITY CHAIRMAN GODSHALL: Okay. I have six more questioners.

MR. BUZYDLOWSKI: Uh-oh.

MAJORITY CHAIRMAN GODSHALL: Yes, I know. We've
got to get the questions to the point --

MR. BUZYDLOWSKI: Oh, sure.

MAJORITY CHAIRMAN GODSHALL: -- you know, and the answers to the point. I'm going to talk to the people that didn't have a chance yet. Representative Davidson.

REPRESENTATIVE DAVIDSON: Thank you, Mr. Chairman. Gentlemen, I want to thank you for your testimony this morning.

And it seems to me that you have some very important equations to solve that have not been presented here today. And I'm particularly interested in the amount of investments that you'll make and economic impact that you'll have. You listed six cities here where a significant amount of those investments will be made, those six urban areas and their suburbs. And I'm just guessing and you let me know if this is true or not, but the reason you're not investing as heavily in rural areas is that the customer base is not there to offset the capital expenditures that you would need to expend in order to ramp up to 5G in those rural areas.

So have you calculated how to offset those costs when you can't generate that organically from those rural areas by investments in the urban areas that you need to invest in to reach the market that you need to reach? Have you calculated how to do both, seeing that you'll lose
money in the rural areas?

MR. SAMARA: That's a good question. I'll turn it over to Buzz here in a second, but unfortunately, my member companies don't have the urban areas to offset. You know, we are strictly rural so we don't have Philly, Pittsburgh, Erie, Scranton, State College to do that. But your question is a good one because, you know, how do you do that because the cost to provide service where there are 50 households per square mile as opposed to 200 households per square mile is a different equation.

And unfortunately, my -- not unfortunately. The fact of the matter is my member companies, the rural folks, are providers of last resort. They don't have a choice where they go and serve. They have to serve everywhere. So, like I said, it's not a business model to maximize profitability. It's a business model that makes sure that everyone has service. So maybe it's good that we don't have those decisions to make about balancing between urban and suburban and rural. It's not. We don't have that luxury. We have to serve everywhere and it's very expensive to serve everywhere. Buzz's company has those decisions to make about how they balance between urban, suburban, and rural so --

MR. BUZYDLOWSKI: Briefly. I thought you were going to say don't.
Well, the good people of Upper Darby, okay, do at least, you know, as -- the laws of economics cannot be repealed or amended, okay? They are always in our business going to be subsidizing the people who live in rural areas because, quite frankly, the more densely populated areas -- and I've been to your district. There is a greater opportunity to turn a profit. When you go into more rural, more sparsely populated areas, it's lessened but the investment is the same. You only cover the same number of square miles for the same number of dollars but you have less people paying. We I think have done a good job of balancing that, but there's always room for improvement.

REPRESENTATIVE DAVIDSON: And it's important that you find a solution to that equation. And I'm speaking to the gentleman that spoke previously as well --

MR. BUZYDLOWSKI: Gerry Keegan.

REPRESENTATIVE DAVIDSON: -- because you have the equation of all the rural legislators that would have to give you the access to the urban areas like mine, suburban areas, in order for us to, as the Legislature, decide we want to help here and make these investments in Pennsylvania. So I encourage you to solve that equation so that we can move on with making the investments that would be important to my district, but I can't do it without my fellow rural legislators.
MAJORITY CHAIRMAN GODSHALL: We'll send those lines down from Montgomery County.

REPRESENTATIVE DAVIDSON: Thank you.

MAJORITY CHAIRMAN GODSHALL: Representative Heffley.

REPRESENTATIVE HEFFLEY: Thank you, Mr. Chairman.

And as a new Member to the Consumer Affairs Committee, this is a great learning process. But I just wanted to just touch on something real quick. As a Member who represents a rural area and doesn't have cell phone service at my location, I still rely on my landline and my phone number is still listed in the phone book. But we are very fortunate throughout Carbon and Monroe Counties and the surrounding area to have a great company -- I'll just put a plug-in for one of our local companies, Blue Ridge Cable and PenTeleData. They do a very good job of providing high-speed broadband Internet connections to the area. I can watch Netflix and everything at the house. We have a great provider, a great company.

And just as we go forward with this, I just want to ensure that companies like PenTeleData and Blue Ridge, which are making those investments in the community which are located in the community and building their facilities in the community, I don't want them to have to be competing
against public dollars to build out infrastructure and then have to compete with them to provide that. These are taxpaying companies that are doing a good job in the community, and I just want to make sure that the public sector is not going to come in and compete against them and drive down those rates. And that's just something that as we go through this I think is something that we need to be cognizant of is to make sure that we're keeping those companies that are doing a good job in mind and not affecting their service. Thank you.

MAJORITY CHAIRMAN GODSHALL: Anybody want to comment on that?

MR. SAMARA: I agree.

MAJORITY CHAIRMAN GODSHALL: Okay.

MR. SAMARA: I'm glad that the Representative has a landline no matter whose it is.

MAJORITY CHAIRMAN GODSHALL: Okay. Pam Snyder, Representative Snyder.

REPRESENTATIVE SNYDER: Thank you, Mr. Chairman, and thank you for your testimony.

It's no secret in my district when you say the word telecommunications we're challenged on every level. I'm very happy to hear that in your rural area you have good high-speed Internet. That's not true in my district in many areas. In the last several months not only have I
fielded complaints about the lack of high-speed broadband,
I have fielded multiple complaints about the lack of
landline service. So I am challenged on every level from
cell phones to broadband to landlines.

    And I agree with you, Steve. You know, I think
this Committee and the PUC, we have to find a way to be
able to solve this problem for every Pennsylvanian. And I
recognize the fact that the industry needs to be in the
urban areas to make a profit, but that doesn't take away
the fact that the student in my local high school should be
able to go home and be able to do his homework that was
assigned to him or an adult in my district should be able
to take an online course that they can't now. And while we
are challenged by population, I will quote one of my
favorite movies, that if you build it, they will come. If
I have good infrastructure in my district, more people will
want to build homes there and come there perhaps.

    So I think we need to take a look at the
Universal Service Fund, of what we can do there with
landlines continuing to be depleted. Maybe we need to look
at repurposing those funds for bigger investment in
broadband. So I look forward to this dialogue to continue,
and I really am committed and hope we can find a solution
for all Pennsylvanians. Thank you. Thank you, Mr.
Chairman.
MR. SAMARA: Thanks, Representative Snyder. I just want to say repurposing is one way to look at this thing. That's what modernizing what the Universal Service Fund is designed for. The only caution I have is be careful if you're robbing Peter to pay Paul because you still need that landline network to get all the bells and whistles of broadband. But we have talked numerous times about challenges that your constituents face, and we know that, and we want to work with you to try and get that there.

I think that the reason that I mentioned the CAF funding not being a godsend because you look at the number and it's like, well, geez, that's millions and millions of dollars. What have you been doing with it? Well, when it costs $25,000 to $50,000 a mile to put fiber out there with no guarantee you're going to get more than 10, 15 -- I'm making up numbers here, but a low percentage of take rates, you know, you have to make that business decision. So Waynesburg and Carmichaels we want to serve. They aren't Philly and Pittsburgh, you know, so those are the issues we have. That's just economics. But we want to work with you going forward to make sure that we can get to not only Carmichaels and Waynesburg but everywhere in between.

REPRESENTATIVE SNYDER: And Aleppo and Rattan and Brownsville.
MR. SAMARA: Yes. Right, right.

REPRESENTATIVE SNYDER: The list is endless.

MR. SAMARA: Yes.

REPRESENTATIVE SNYDER: But for the people at home, since you brought that up, isn't it true that all of the providers, a lot of them use the same infrastructure to get this service to people's homes, and that that could be why some companies are challenged on the speed? True or false?

MR. SAMARA: That we use the same infrastructure?

REPRESENTATIVE SNYDER: Fiber versus copper versus --

MR. SAMARA: Well, my member companies have infrastructure in place just like Verizon does.

REPRESENTATIVE SNYDER: And multiple companies can use the same infrastructure?

MR. SAMARA: Yes. Oh, yes. Those are --

REPRESENTATIVE SNYDER: That's what I want the people at home to hear.

MR. SAMARA: We charge access charges for other companies, wireless companies, other landline companies to use that network. Unfortunately, access charges are going to be gone within the next five or six years so we won't be able to charge for using that network. That's part of the FCC order that I referenced earlier. That support to have
that revenue to do what we do with our networks is drying up, which makes effort to stay at that level all that more important.

REPRESENTATIVE SNYDER: Okay. Thank you.

MAJORITY CHAIRMAN GODSHALL: Okay.

MR. BUZYDLOWSKI: But I think it's -- sorry.

MAJORITY CHAIRMAN GODSHALL: No problem. We have one final, Carl Metzgar.

REPRESENTATIVE METZGAR: Thank you, Chairman Godshall. I appreciate it. Hey, just sorry, Steve, that these are all for Mr. Buzydlowski. I apologize.

My first question, easy yes or no question, are Chapter 30 monies being used to provision cell sites?

MR. BUZYDLOWSKI: When you say Chapter 30 monies, we self-fund.

REPRESENTATIVE METZGAR: Understood.

MR. BUZYDLOWSKI: So it all comes out of the same pot.

REPRESENTATIVE METZGAR: Well, I guess my question is is that, you know, you sat up here for Verizon Wireless and now you're sitting here for Verizon Wireline --

MR. BUZYDLOWSKI: Yes.

REPRESENTATIVE METZGAR: -- two different companies, correct?
MR. BUZYDLOWSKI: There's two different subsidiaries.

REPRESENTATIVE METZGAR: But they are affiliated companies. They're not --

MR. BUZYDLOWSKI: We are affiliated, correct.

REPRESENTATIVE METZGAR: Not the same company.

MR. BUZYDLOWSKI: I represent both.

REPRESENTATIVE METZGAR: So I guess my question is Chapter 30 says that you can't fund affiliated entities. So is that happening?

MR. BUZYDLOWSKI: I understand your question. The direct answer is no, but I think you should -- and I believe you know some of this. You know, Verizon, like any other company, budgets. And Verizon Wireline budgets Chapter 30 money and invested, as I talked about, billions of dollars to bring rural Internet service to everybody.

REPRESENTATIVE METZGAR: So if you or your contractors are using public utility status to provision a cell site, that would be considered Verizon and not Verizon Wireless, right?

MR. BUZYDLOWSKI: There's a transaction between Verizon Wireline and Verizon Wireless to construct the 190 4G LTE cell phone towers that provide service pursuant to Chapter 30.

REPRESENTATIVE METZGAR: All right. I only have
six minutes and the Committee only has six minutes. So you said about your network modernization plan that you filed that you were supposed to be in compliance in 2015 with.

MR. BUZYDLOWSKI: Yes.

REPRESENTATIVE METZGAR: And you said you were 100 percent in compliance?

MR. BUZYDLOWSKI: Yes.

REPRESENTATIVE METZGAR: Okay. Has anyone audited that?

MR. BUZYDLOWSKI: The Public Utility Commission has the power to audit. I know that they are in regular contact with our people and go through processes to check and --

REPRESENTATIVE METZGAR: So how do you report 100 percent compliance when Representative Snyder's district and my district and Eric Nelson's district -- I guess we don't have dial tone let alone broadband, so I'm still confused how are we 100 percent compliant?

MR. BUZYDLOWSKI: Well, we are 100 percent compliant, and I would challenge the assertion that they don't have dial tone --

REPRESENTATIVE METZGAR: Well, I guess the definition of dial tone some days -- Pam and I will maybe --

REPRESENTATIVE KAMPF: Mr. Chairman, might the
witness being cross examined be allowed to answer the
question?

MR. BUZYDLOWSKI: Thank you, Your Honor. No,
Representative Metzgar, first of all, we --

REPRESENTATIVE METZGAR: How much does --

MR. BUZYDLOWSKI: Don't go there. We have an
obligation to provide dial tone to anyone who asks for it
in our territory, and we do so.

REPRESENTATIVE METZGAR: Okay. And if there's
one example of one person who cannot get dial tone from
Verizon who lives in Verizon's territory as opposed to most
Representative Snyder's district is in one of Steve's
member's territories. But if there's one example of that,
bring it to my attention and we'll make sure that they get
dial tone.

REPRESENTATIVE METZGAR: Okay.

MR. BUZYDLOWSKI: Now, Chapter 30, also, in
addition to that, requires that we have to provide high-
speed Internet service to all of our customers. And we do
provide it -- we make it available of course; they don't
have to buy it -- to every one of our customers.

Now, in your district, as an example, there are
many people who get high-speed Internet service through DSL
or with copper landline network. We -- I just happen to
know this number -- constructed 45 4G LTE cell towers in
Somerset County for the purpose of making sure that the
people who couldn't get DSL could get high-speed Internet
service over a more modern and faster network. And that's
how we are complying. And I'm speaking directly to
Somerset County, but we could talk about any location in
the State.

REPRESENTATIVE METZGAR: Could I ask a question,
Representative Kampf?

REPRESENTATIVE KAMPF: Absolutely, but please
give him the courtesy to answer when you're done.

REPRESENTATIVE METZGAR: Thank you. So I guess
I'm still trying to get an answer to my question. I have a
constituent that has no ability to get broadband, zero
ability, that there is none available to that person,
there's no wireless availability, there's no availability,
and I have that constituent, how are we compliant?

MR. BUZYDLOWSKI: So you are not asking a
hypothetical question. You're saying you have a
constituent in that case?

REPRESENTATIVE METZGAR: Certainly.

MR. BUZYDLOWSKI: As you well know, you could
provide me that constituent's name and information and I
will immediately attend to it.

REPRESENTATIVE METZGAR: Okay.

MR. BUZYDLOWSKI: And I'm sure you realize that
on numerous occasions you and your district office staff have come to me with people who have asked about getting high-speed Internet service, and in every case we provided the answer as yes, that they can get the service.

REPRESENTATIVE METZGAR: Certainly you're most helpful in regard to that. I guess I'm just wondering how would we go ahead with, you know, auditing that modernization plan? I mean, does that need done I guess is my question because it's just something Verizon filed. No one else has done anything other than the PUC has looked at it, correct?

MR. BUZYDLOWSKI: Well, of course, but that's who we file with, the Public Utility Commission. By this Committee's legislation and this General Assembly empowered the Public Utility Commission to analyze and approve and then make sure we're compliant with our network modernization plan.

And it wasn't just one filing. I think Steve alluded to this. We didn't just do a data dump one day. It was an ongoing process that was completed in the end of 2015, and then we made a final filing that indicated 100 percent compliance.

Now, the Public Utility Commission, you know, they have the power and authority to investigate whatever --
MAJORITY CHAIRMAN GODSHALL: At this time it's 11 o'clock, which we have to adjourn by matter of law. And of course we're on the floor at 11 o'clock. So I just want to mention that there's written testimony here from Windstream that's been included and then also by CenturyLink that is in your folders.

So thank you very much for your participation, and thank you to the testifiers.

(The hearing concluded at 11:00 a.m.)
I hereby certify that the foregoing proceedings are a true and accurate transcription produced from audio on the said proceedings and that this is a correct transcript of the same.

Christy Snyder

Transcriptionist

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