



Testimony before the Energy & Technology Committee  
Consumer Counsel Elin Swanson Katz  
February 10, 2015

**Proposed S.B. No. 572, AN ACT CONCERNING GIGABIT INTERNET ACCESS**

Good afternoon Senator Doyle, Representative Reed, and members of the Energy & Technology Committee. I come before you today in support of Senate Bill 572. With me today is State Broadband Policy Coordinator William Vallee, who is also a member of the Office of Consumer Counsel (OCC). The OCC has been actively working for several years now to increase Connecticut consumers' access to low-cost, ultra-high-speed gigabit internet networks.

Gigabit or "Gig" networks provide speeds of up to 1000 megabits per second ("Mbps"). By way of contrast, the average home internet speed in the United States is less than 10 Mbps, so Gig networks offer a one hundred-fold increase to typically available speeds. There are an ever-increasing number of major telecommunications companies expanding their service to include gigabit-speed offerings, or investing in fiber networks to support gigabit speed internet for consumers. **Attachment 1.** However, as can be seen on Attachment 1, none of these networks are being developed in the northeast United States, from Virginia to Maine, and none are yet

planned in Connecticut. However, there is clearly a consumer market, as major telecommunications companies are offering this service to residents in other parts of the country. **Attachment 2.**

The Connecticut Legislature is appropriately recognizing through S.B. 572 that this situation needs to change. We still have an opportunity for leadership in this area as a State, but soon we will need to make progress just to avoid being left behind. Connecticut has an educated and tech-savvy population and a high number of high-tech and information-intensive industries that require high-speed internet access at a reasonable cost. It is not an overstatement to say that our economic future may depend on it. Cheaper, faster, more reliable internet service is now an essential tool for high-tech industry, bioscience, health care, insurance, education, and any other industry of business that works with large amounts of data.

Right now, there is no Gig service for residential consumers, and there are major problems with obtaining a Gig in the business market. If you are a business customer, you may be able to access a Gig or close to it, but installation can be very slow and it will come at great cost. I did a listening tour this summer of high-tech businesses, during which we heard from representatives of over 100 businesses about the challenges they face if they need high-speed access. If a business is able to access high-speed service, it comes at a very high cost: upwards of \$3000 a month. Many businesses cannot access a Gig at any cost, and others have to wait months and months for a connection. When you consider that Google Fiber and the other examples you see on Attachment 1 are offering a Gig in other parts of the country for around \$70 a month, the contrast is evident. Our businesses are at a virtually

insurmountable competitive disadvantage with respect to connectivity.

As the consumer advocate for telecommunications, I want to change this map. Consumers in Connecticut – indeed, all over New England and New York – risk getting left behind as the rest of the country, and the rest of world, brings Gig access to their citizens. I have been working for the last several years, with support and in partnership with many of the people in this room, to increase internet speeds, lower costs, and improve reliability for consumers, with the goals of stimulating economic growth, driving job growth, fostering innovation, and improving educational opportunities.

Our solution involves community networks. Community networks are being developed by municipalities all over the country to bring this powerful resource, Gig networks, to their citizens. Again, however, no community networks have to date been created in Connecticut.

Our efforts culminated in issuance of a Request for Qualifications by three municipalities (the “CT Municipal RFQ”) – Stamford, West Hartford, and New Haven – on September 15, 2014, seeking private-sector partners to develop Gig networks in their communities. The CT Municipal RFQ is based on a public-private partnership model used successfully in other parts of the country, including a privately funded project across the entire state of Kentucky, and another by AT&T and Google Fiber across the entire “Research Triangle” municipalities of North Carolina. This is government facilitation of a legitimate policy goal, not a government takeover. We in government are helping to clear a path for the benefits of our citizens, not getting in the way of the private sector. Indeed, the success of this effort depends on the private

sector.

It's important to understand just what is being sought through the RFQ. The municipalities are looking to create open-access Gig networks, which means that the network is opened and operated by a third party, but any internet service provider ("ISP") may use the network to access customers. In other words, we're finding a partner to build a high speed road in every Connecticut town, so that any ISP may use it to deliver service to all the residents, businesses, and community anchor institutions across this state. Through this model, we increase competition and bring down costs. An open-access network was created years ago in rural Washington State, for example, and now if you live there, you can have access to a choice of many different internet service providers.

We are seeking private equity partners from across the globe to invest in this state: the RFQ expressly states that neither the state nor any municipality will finance the building of a fiber network. Private money could be used to provide the 169 towns in this state with the benefits of a fiber network to every corner of this state. The basics of the RFQ are described in **Attachment 3**.

The CT Municipal RFQ was issued by Stamford, West Hartford, and New Haven, but it also invited any other interested municipality in the state to join the process simply by submitting a resume of the town. By the time the process for joining closed on December 2014, 46 municipalities had affirmed their interest in joining this Project, representing over half of the State's population. **Attachment 4**. (Note that this map was developed by Comptroller Lembo's office.) However, we have now received dozens of phone calls and emails from other municipalities who are

interested in the process, so at this point, we look at this as an effort supported by most if not all the municipalities in Connecticut.

Responses from the private sector were due in the middle of January. We were very pleased to receive eleven responses. The towns are now in the process of reviewing the responses, and it is obvious that this effort is being taken very seriously by the telecom industry. Frontier, which bought out all of AT&T's phone lines, wants to be a part of the dialogue. Also, Fibertech, which owns the Nutmeg Network, including the Connecticut Education Network, is also looking to be part of the process.

Included were responses from Macquarie Capital and SiFi Networks. Both are international companies involved in building municipal networks in other parts of the country. Macquarie Capital is a multi-billion dollar Australian investment company that specializes in infrastructure and utilities, among other areas. They own Aquarian Water Company based in Bridgeport, for example. They bring the resources to the table to potentially build in every town in the state. They are building a statewide "middle mile" network in Kentucky, for example, akin to the Nutmeg Network, which involves a 30-year contract to build a 3000 mile network at a cost of \$250 million to \$350 million.

SiFi Networks is an London-based infrastructure developer that funds and builds fiber networks, including in municipalities in California and Missouri. They have an innovative technology that involves micro-trenching and using existing sewer conduits as a means to deploy fiber. So, we know that our RFQ has created some thoughtful, substantial responses by the telecommunications industry, and believe that this is the moment to realize the creation of fiber networks in Connecticut.

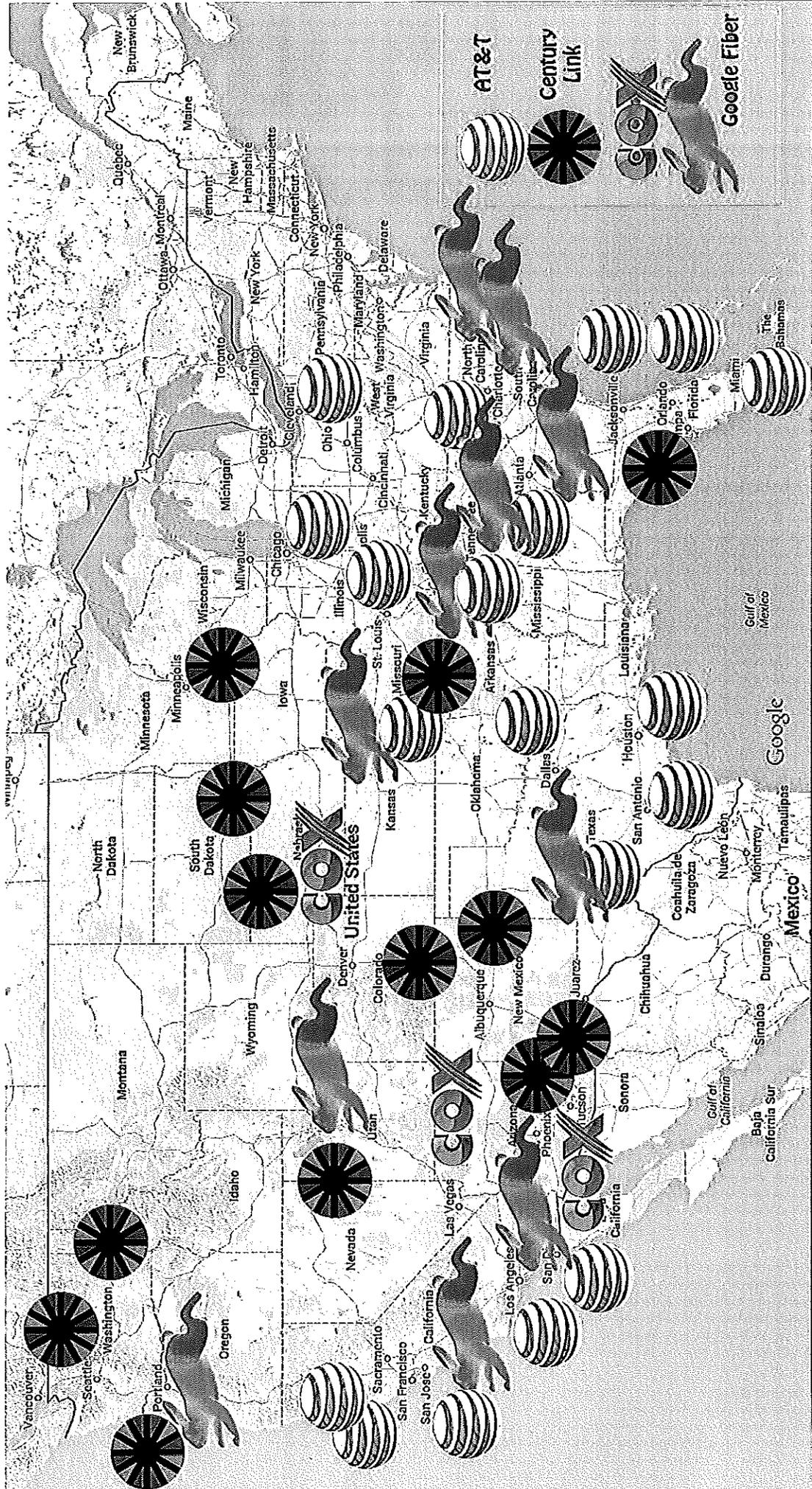
OCC's role has been to facilitate the CT Municipal RFQ by drafting the document, acting as the towns' agent, and organizing the towns. Bill Vallee and I have attended many, many municipal meetings, Councils of Governments ("COG") meetings, Information Specialist meetings, basically any place that we're invited to speak about the RFQ, we try to go. We have also worked hard to get the word out to the private sector about this effort, and I think the quantity and quality of the responses shows we have been successful. We have also regularly met with members of the administration, the Comptroller's Office, Senator Looney, Senator Bye, and others from the legislature.

This effort has received national attention. Tom Wheeler, Chairman of the Federal Communications Commission, issued a press release applauding the effort. The Hartford Courant and the Hartford Business Journal both had editorials supporting the CT Municipal RFQ. All of us involved have received inquiries and invitations to discuss the effort from all around the country. There have also been questions and statements of support from overseas, with lots of different entities monitoring our success. And as I said earlier, we have heard from municipalities all over the state that want to be part of this effort.

I believe that we collectively have sparked a conversation about how to best bring cheaper, faster, more reliable internet access to our citizens at a historical moment in time. The FCC appears poised to reclassify broadband as an essential public service, as important as electricity or phone, and to require net neutrality for those who use it. This will necessarily raise the question of "Now what?" We have an answer to that question. The CT Municipal RFQ is an innovative approach that brings

private capital into our state at no cost to us or our municipalities. It is my hope and vision that we create a model public-private partnership to build Gig networks throughout our state that is available to *every* municipality. I believe this will be a model for other states, an historic example of how state and local government can work together to effect a meaningful change in the way the internet is delivered to our citizens, and with it, all the attendant benefits that Gig networks can bring. However, this is a marathon, not a sprint, because building this kind of infrastructure requires long-term planning, and it is essential that we work together. I therefore ask that you support SB 572 and continue to support high-speed broadband development throughout our state.

Attachment 1



## Attachment 2

From AT&T's website about its gigabit service in North Carolina:

# How Fast is 1 Gbps?

1 second

=



Download 25 songs\*

3 seconds

=



Download Favorite TV Show\*

36 seconds

=



Download an Online HD Movie\*

\*Internet speed claims represent maximum network Service Capability speeds. Actual customer speeds may vary and are not guaranteed. Actual speeds vary based on factors including site traffic, content provider server capacity, internal network factors and device capabilities, and use of other Uverse services.



## Attachment 3



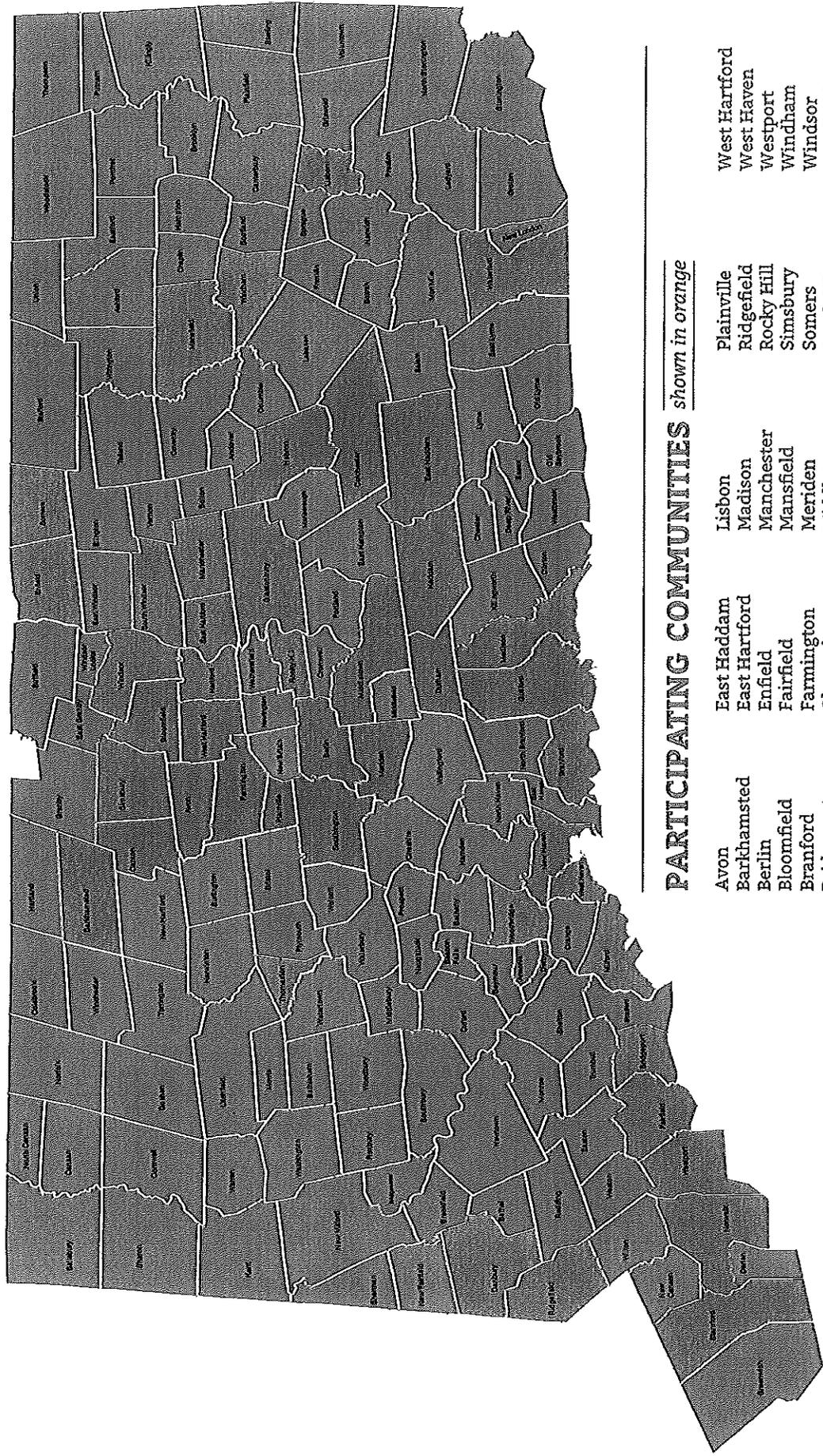
### Information on Connecticut Municipal RFQ Seeking Partners to Develop Gigabit Internet Networks in Their Communities

- Residents, businesses, and municipalities in Connecticut are demanding cheaper, faster, more reliable Internet services because such services are an essential tool for high-tech industry, bioscience, health care, education, and any other industry or business that works with large amounts of data.
- The current average Internet speed in Connecticut of 9 megabits per second (Mbps) is too slow for many current needs and applications, and hinders progress, growth, and innovation in numerous areas, including business, education, and e-government.
- Other parts of the country (and other parts of the world) are seeing the development of ultra-high-speed gigabit “Gig” networks of 1000 Mbps with prices of \$70/month or lower, but there are none in Connecticut and only two municipal Gig networks being developed in New England.
- Industry and government have successfully created public-private partnerships to develop Gig networks in other states.
- A collaboration of Connecticut municipalities led by Stamford, West Hartford, and New Haven has issued a Request for Qualifications (RFQ) soliciting information and partnerships with potential providers to create Gig networks in their communities.
- The Municipal RFQ has three goals:
  - Create a world-leading gigabit-capable network in targeted commercial corridors – as well as in residential areas with demonstrated demand – in order to foster innovation, drive job creation and stimulate economic growth.
  - Provide free or heavily discounted 10-100 MB (minimum) Internet service over a wired or wireless network to underserved and disadvantaged residential areas across the territories and diverse demographics.
  - Deliver gigabit Internet service at prices comparable to other gigabit fiber communities across the nation.
- The RFQ process does not involve any legal or financial commitment on the part of a municipality. The municipalities intend to be infrastructure and policy partners only, contributing in-kind assets and support, and do not intend to act as retail service providers or network operators.
- Any interested municipality may join the RFQ by submitting a Municipal Addendum. The RFQ, with instructions for submitting a municipal referendum, is available online at <http://www.cityofnewhaven.com/PurchasingBureauOnline/index.asp>. (Note that a user may sign on with a phone number in lieu of a tax ID number).
- Relevant documents, including the RFQ, Addendums of the three cities, a press release, and recent news articles, can be viewed at the Office of Consumer Counsel’s website at [ct.gov/occ](http://ct.gov/occ).

# Attachment 4

50% of CT's population\*  
 CT's four largest cities  
 Over 1.7 million residents

HIGH SPEED  
 LOW COST  
 INTERNET  
 for ALL



## PARTICIPATING COMMUNITIES *shown in orange*

- Avon
- East Haddam
- Lisbon
- Plainville
- West Hartford
- East Haddam
- East Hartford
- Madison
- Ridgefield
- Berlin
- Enfield
- Manchester
- Rocky Hill
- Bloomfield
- Fairfield
- Mansfield
- Simsbury
- Branford
- Farmington
- Meriden
- Somers
- Bridgeport
- Glastonbury
- Middletown
- South Windsor
- Canton
- Guilford
- Milford
- Southington
- Colchester
- Haddam
- New Haven
- Stamford
- Danbury
- Hartford
- New London
- Thomaston
- Durham
- Hebron
- Norwalk
- Waterford

\* Population statistics from 2013 DPH estimates: [www.ct.gov/dph](http://www.ct.gov/dph)