



**Testimony of Lisa McCabe
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CTIA
Support for Michigan Senate Bill 637
November 2, 2017**

Before the Michigan Senate Energy and Technology Committee

Chairman Nofs and members of the Committee, on behalf of CTIA, the trade association for the wireless communications industry, and its members, I am testifying here today in strong support of Senate Bill 637, related to the deployment of small wireless communications facilities. The people of Michigan continue to demand – at increased levels – access to wireless products and services. This is demonstrated by the fact that there are over 10 million wireless connections, representing more wireless devices than residents, and over 51 percent of Michigan households are wireless only.¹ These wireless subscribers are not just making simple voice calls, as mobile data usage has skyrocketed 35 times since 2010.² These demands from the wireless industry's customers – your constituents – require that wireless networks be updated today and readied for the next generation of wireless technology. Senate Bill 637 is a needed mechanism to accommodate consumer demands and help to realize the future.

Small wireless facilities – also known as small cells – are being widely deployed to accommodate this increased demand. Small cells are wireless antennas, typically no more than six cubic feet in volume, and associated equipment, generally less than twenty-eight cubic feet in volume, that are being installed on existing structures like utility poles, street lights and traffic signal poles. This global trend is sweeping the country. Small cells enhance capacity on existing 4G LTE wireless networks by efficiently using scarce spectrum, and they will be required for the higher-frequency spectrum that 5G networks will depend on. The benefits provided by 5G are astounding. 5G networks will provide increased capacity to accommodate growing consumer demands by

¹ U.S. Census, Populations Estimates, at <https://www.census.gov/data/tables/2016/demo/pepest/state-total.html>; and, CDC/NCHS, National Health Interview Survey Early Release Program, Modeled Estimates of the Percent Distribution of Household Telephone Status for Adults Aged 18 and over, by State: United States, 2015, August 2016, at https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless_state_201608.pdf, last accessed 10/25/17.

² CTIA's Wireless Industry Summary Report, Year-End 2016 Results, 2017, <https://www.ctia.org/docs/default-source/default-document-library/annual-year-end-2016-top-line-survey-results-final.pdf?sfvrsn=2>, last accessed 10/25/17.



connecting 100 times more devices. Imagine a future where nearly everything is connected to ubiquitous wireless networks at speeds up to 100 times faster than today. Imagine communities that are smarter and more connected. Entire sectors, from public safety to transportation, will be transformed. Small cell infrastructure is key for autonomous vehicles and the future of transportation.

In fact, Accenture recently published a study noting that 5G wireless networks could create as many as three million jobs and boost the U.S. GDP by nearly \$500 billion over the next seven years.³ More specifically, Michigan communities – from small towns to big cities – that embrace the next generation of wireless connectivity like Traverse City may increase GDP by \$24 million, and a community like Grand Rapids may increase GDP by \$299 million.⁴

Furthermore, a report recently published by Deloitte illustrates how other industries are leveraging today's wireless platform for innovation and growth, and how increased wireless deployment will spur even more advancements in these key economic sectors.⁵

- **Energy.** Wireless enabled smart grids could create \$1.8 trillion for the U.S. economy—saving consumers hundreds of dollars per year.
- **Health.** Wireless devices could create \$305 billion in annual health system savings from decreased costs and mortality due to chronic illness.
- **Public Safety.** Improvements made by wireless connectivity can save lives and reduce crime. A one-minute improvement in emergency response time translates to a reduction of 8% in mortality.
- **Transportation.** Wireless powered self-driving cars could reduce emissions by 40-90%, travel times by nearly 40% and delays by 20% - and translate to \$447 billion per year in savings, and, more important, 21,700 lives saved.

That is the promise of the next-generation of wireless technology. Michigan has an opportunity to be a leader in its deployment.

³ "How 5G Can Help Municipalities Become Vibrant Smart Cities," Accenture Strategy, Jan. 12, 2017. These estimates are based on expected benefits for the United States from next generation wireless networks and some smart city technologies. They are based on per capita application of the estimated national benefits to individual cities (e.g., the number of construction jobs are national averages assigned on a per-capita basis), and may vary depending on the individual city.

⁴ Ibid.

⁵ Deloitte, "Wireless Connectivity Fuels Industry Growth and Innovation in Energy, Health, Public Safety, and Transportation," http://www.ctia.org/docs/default-source/default-document-library/deloitte_20170119.pdf, last accessed 10/25/17.



Senate Bill 637 helps to remove barriers to efficient deployment of small wireless facilities by streamlining processes and imposing reasonable rates and fees. The legislation clarifies that small wireless facilities on existing infrastructure is a “permitted use” and not subject to the type of review larger “macro” towers receive. The legislation would also ensure that a small cell application is approved within 60 days if there are no deficiencies indicated by local government. Senate Bill 637 also allows for consolidation of substantially similar small cell applications in order to minimize administrative impacts while improving efficiency.

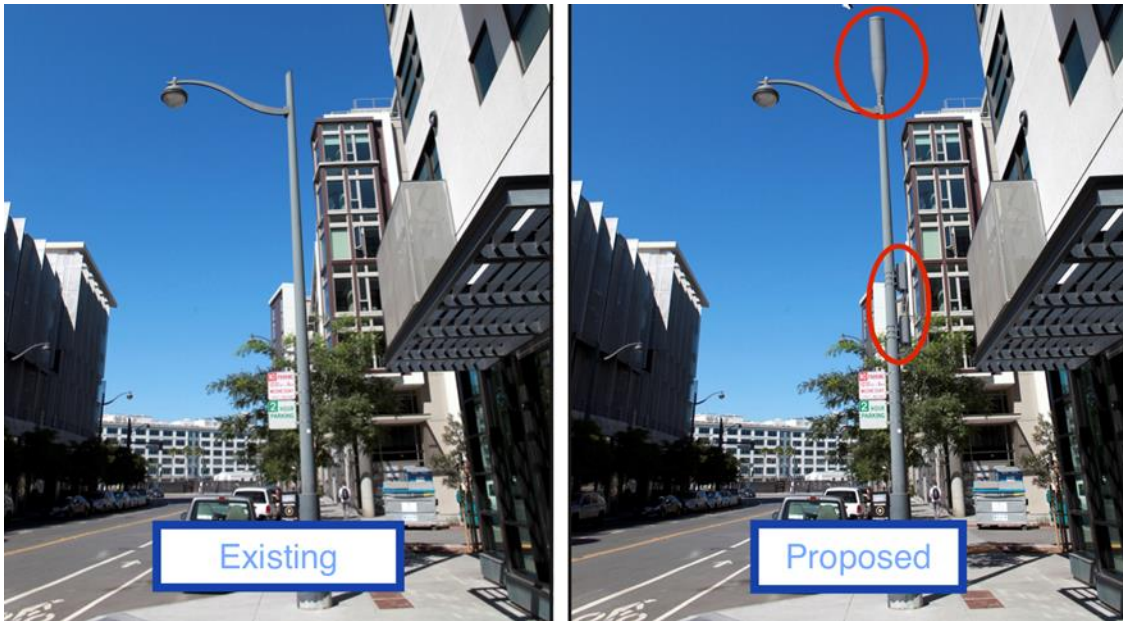
Finally, it is important to note that Senate Bill 637 places no limitations on localities' ability to deny permits based on building, safety or electrical codes or standards. There is no removal of localities' jurisdiction in these areas.

In closing, states across the country are moving quickly to ready themselves for the investment influx 5G will bring. In fact, within the past eighteen months, 12 states have enacted small cell bills that will streamline and expedite the deployment of next generation wireless networks. Capital tends to flow to places that are ready for investment and Senate Bill 637 will send a signal that Michigan is ready for that investment.

Thank you for the opportunity to provide support for Senate Bill 637. CTIA strongly urges its approval.



Example of a Small Cell





5G Benefits: Michigan



- **Grand Rapids**
 - Over \$113 million in Smart City benefits
 - \$299 million in estimated GDP growth
- **Jackson**
 - Over \$9.8 million in Smart City benefits
 - \$50 million in estimated GDP growth
- **Detroit**
 - Over \$388 million in Smart City benefits
 - Over \$1 billion in estimated GDP growth
- **Traverse City**
 - Over \$4.5 million in Smart City benefits
 - \$24 million in estimated GDP growth

5G NEXT GENERATION WIRELESS WILL IMPROVE COMMUNITIES ACROSS AMERICA.

FROM SMALL TOWNS TO BIG CITIES, **ALL COMMUNITIES** WILL BENEFIT FROM 5G

5G-powered Smart City solutions will produce **\$160B** in **benefits and savings** for Americans by.....

- Reducing Energy Usage
- Decreasing Traffic Congestion
- Lowering Fuel Costs

ctia Everything Wireless

Source: <https://www.ctia.org/press-releases/5g-powered-smart-city-solutions-will-produce-160-billion-in-benefits-and-savings-for-americans-by-2030>