

# Small cells in communities

AT&T places the safety of its customers, workers, and communities first, even as we begin deploying next generation technologies to keep you connected. Below are some things to know about the safety of RF signals from small cell facilities.



## Network capacity and mobile device performance are improved with small cells.

- Because small cells help optimize the network for its users, it reduces the power and radio transmissions – including RF energy – mobile phones use to make calls and send data.
- This helps mobile devices deliver increased data capacity, faster connectivity speeds and an overall better wireless experience, while helping maintain affordability for consumers.



## Small cell facilities are different than traditional cell towers.

- Small cells typically are located 30 feet or more above the ground on light, traffic, or utility poles.
- Small cell facilities operate at power levels lower than antennas on cell towers. These low power operations reduce the chance that they will interfere with each other.



## Small cell facilities must comply with the FCC regulations that limit human exposure to RF signals.

- Those regulations were developed by expert scientists and engineers after extensive reviews of scientific literature related to RF biological effects and supported by other federal agencies (e.g., U.S. Environmental Protection Agency, Food and Drug Administration, National Institute for Occupational Safety and Health and Occupational Safety and Health Administration).<sup>1</sup>
- These limits are conservative, with a “prudent safety factor,”<sup>2</sup> which has been described as a fifty-fold safety factor below known potential health effects from RF exposure.<sup>3</sup> And, small cell facilities generate RF exposure to the general public that is *hundreds of times below* conservative FCC limits.
- Government agencies continue to monitor the science to determine whether changes in safety limits are needed to protect human health.



## AT&T has a rigorous RF safety program.

- All of our wireless facilities, including small cell deployments, are designed and built to comply with the FCC exposure limits.
- AT&T’s small cell facilities will comply with the RF exposure limits.

As we coordinate with state and local officials to deploy small cells, AT&T is committed to working with communities to provide the best possible service in the most responsible way.

<sup>1</sup> See, <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety#Q5>.

<sup>2</sup> Id.

<sup>3</sup> Testimony of Christopher C. Davis, Professor of Electrical and Computer Engineering, University of Maryland, before the Michigan House Energy Policy Committee (May 29, 2018), available at <http://www.house.mi.gov/SharedVideo/PlayVideoArchive.html?video=ENER-052918-2.mp4> (Prof. Davis Testimony).

<sup>4</sup> Prof. Davis Testimony. See also, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65, at 14 (1997) (“For antennas mounted higher than 10 meters, measurement data for cellular facilities have indicated that ground-level power densities are typically hundreds to thousands of times below the new MPE limits.”)