



# Wireless Infrastructure in Public Right-of-way and on City Infrastructure

Public Utilities Council Committee

January 20, 2016

Austin Energy & Office of Telecommunications &  
Regulatory Affairs

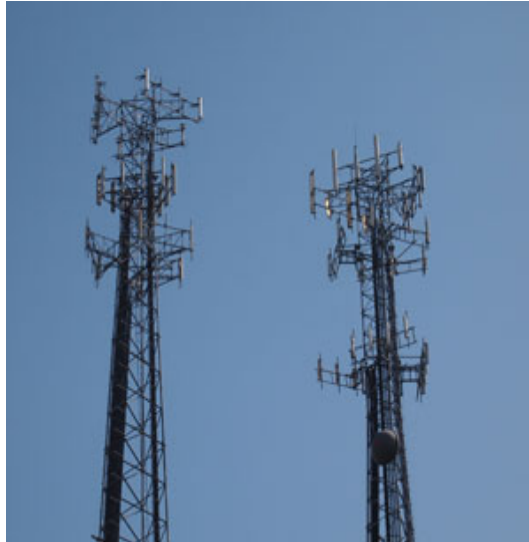
# Introduction

- ▶ Wireline Communications infrastructure (telephone, cable and video service providers and broadband/internet) currently occupies public right of way (PROW), utility poles and some streetlight poles
- ▶ Wireless Communications infrastructure (Small-cell Antenna Systems, Distributed Antenna Systems and Wi-Fi systems) is not accommodated in the PROW, but demand for enhanced wireless and data services are driving the demand for additional infrastructure to support growing usage and to provide better coverage
  - ▶ Demand for wireless data for all applications is projected to grow at an annual rate of more than 60%, for an eleven fold increase between 2013 and 2018 according to Cisco's Visual Networking Index report
  - ▶ Cities are not required legally to allow placement of wireless infrastructure in ROW or on poles

# Issue

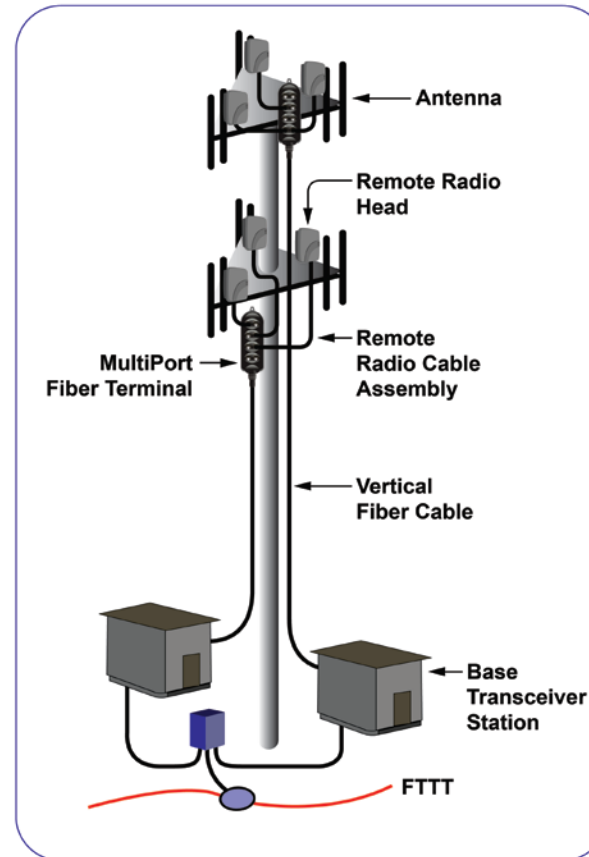
- ▶ Multiple wireless providers have contacted Austin Energy and various City departments with requests to install and attach various iterations of wireless and Wi-Fi systems
- ▶ Installations include overhead and underground use of right-of-way and includes electric utility poles, street light and traffic signal poles and City-owned property and buildings or stand-alone poles
- ▶ Equipment includes radio transceivers, antennas, fiber optic cables for backhaul, amplifiers, power and back-up power supplies, control boxes, cabinets and also installation of poles
- ▶ Decision to allow wireless infrastructure in already crowded PROW requires careful consideration of public welfare and safety considerations

# Traditional Communications Installations



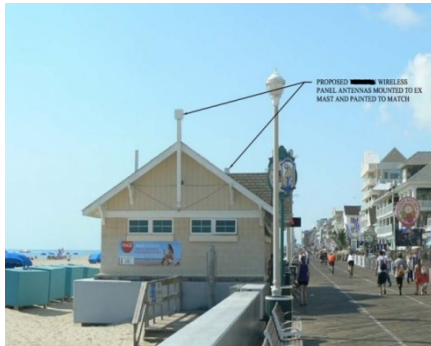
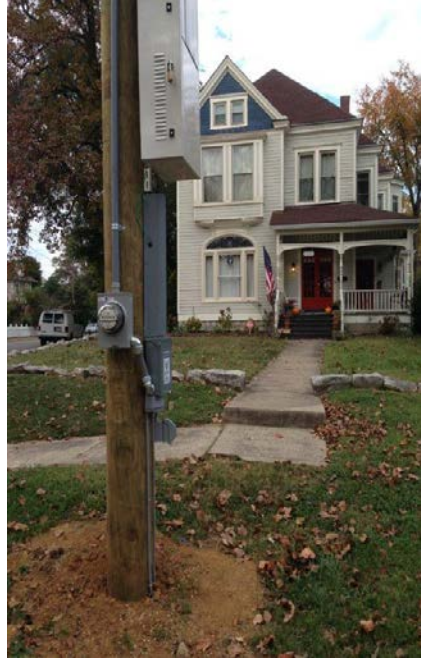
# All Wireless Communication Infrastructure Installations include 4 basic components

Antenna  
Cabinet for Radio  
Equipment Backhaul  
Electricity





# Wireless Communication Installations



# Issue

- ▶ City has internal needs
  - ▶ Growing demand for enterprise wireless infrastructure capacity
  - ▶ Support “Smart City” Technology projects
  - ▶ Expand the City’s owned and operated public Wi-Fi mesh network
  - ▶ Increase connectivity to address the digital divide: City’s Digital Inclusion Strategic Plan
- ▶ City supports the efficient deployment of valuable wireless services to meet the bandwidth needs for City entities, residents, consumers and businesses
- ▶ No citywide integrated policy/regulations for approval to use PROW, electric and streetlight poles and/or traffic signal poles

## Public Interest

## Stakeholders

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Public safety and welfare

All City departments including:  
Austin Energy, CTM, EMS, Fire,  
Parks, Police, Public Works & Transportation

Quality of City streets and sidewalks  
(Great Streets), community beautification,  
design considerations, historic preservation,  
efficient use and management of PROW

Parks, Planning, Public Works & Transportation

Fair compensation for use of PROW

Office of Real Estate Services, Public Works,  
Telecom & Regulatory Affairs, Financial Services

Facilitating deployment of wireless

AE, CTM, EMS, Fire, ORES, Police & Public Works

Electric reliability & safety

Austin Energy



# Current Actions and Next Steps

- ▶ Issues are complex and require ongoing coordination between multiple City departments and stakeholders is required
  - ▶ Austin Energy developing Standards for Wireless Attachments to Utility Poles
  - ▶ Directors of affected departments established Task Force to evaluate needs and develop comprehensive policy recommendations and to explore efficient models and solutions to meet a variety of public and private needs
  - ▶ Task Force will continue exploring strategies of other Cities (solicitations, PROW access and pole attachment agreements, and street light poles with integrated communications infrastructure), etc.
  - ▶ Estimated timeline: 6 months to present to Public Utility Committee