



## **UTC 5G, Broadband & Small Cell Workshop: What You Need to Know**

November 6-8, 2019

Hilton Franklin Cool Springs, Franklin Tennessee

Tentative Program

### **Wednesday, November 6**

Optional Training Session (**additional fee**)

- 1:00 – 1:15**      **Fiber and RF Fundamentals in the 5G World**  
This brief introduction will show how fiber and RF safety should be considered together in the 5G world. In today's design most small cell installations will require a fiber back haul. When working in the space with fiber and radio frequencies, it will be important that we make sure our workers are safe.
- Sheila Wells, Nashville Electric Service
- 1:15 – 3:15**      **Fiber Design Training**  
In this session, the presenter will discuss how fiber is used in the 5G world. The basics of fiber will be covered along with the optimal fiber design in a high capacity environment.
- Presented by AFL
- 3:15 – 3:30**      **Break**
- 3:30 – 5:30**      **RF Fundamentals Training**  
This class will expose the attendee to the basic fundamentals of RF when working in an RF environment. The topics covered in this class include but are not limited to: 1) RF Basics, 2) RF Emissions and 3) Safe Zone tools.
- Anthony Suppa, PSE&G
  - GE Presenter
- 5:30 – 6:00**      **Summary of the Day**
- Darren Farnan, United Electric Cooperative

**6:00 – 7:30      Networking Reception**

**Thursday, November 7**

**7:00 – 8:00      Registration and Breakfast**

**8:00 – 8:30      Overview and Welcome**

Welcome to the conference, overview of UTC's Utility Broadband and UtiliSite Committees, followed by highlights of UTC's 5G White Paper.

- Sheila Wells, Nashville Electric Service
- Darren Farnan, United Electric Cooperative
- Bob Lockhart, UTC

**8:30 – 9:30      Utilities & 5G / Broadband / Small Cells – the reality of what is coming**

This session will provide the attendee with an overview and introduction to the 5G / Broadband / Small Cell environment. The attendee will have access to crucial information to prepare for business and survival in the 5G / Broadband / Small Cells environment.

- Anthony Suppa, PSE&G (moderator)
- Kenneth Hill, Crown Castle Corporation
- Chang Menon, Ericsson

**9:30 – 10:15      Why Fiber is the Right Choice**

Are you hesitating to deploy fiber because of concerns that you will be just enabling competitors to enter your community and take your customers? This session will explain why this is unlikely to happen and why, even with so-called next generation technology on the horizon, you cannot afford to wait to meet the broadband needs of your consumers. Hear from rural, urban and middle mile utilities on why they decided to move forward with their own fiber deployments and how they expect the competitive landscape to impact them.

- Calix Speaker (Moderator)
- Eric Fugett, Nashville Electric Service
- Darren Farnan, United Electric Cooperative
- Investor-owned utility speaker

**10:15 – 10:30      Break**

**10:30 – 11:30      Fiber Engineering**

This session is a continuation and expansion of the Fiber Design Training. The presenters in this session will discuss current tools, products, techniques and processes used in the 5G/Small Cell environment along with challenges and solutions.

- Gary Vondrasek, Jacksonville Electric Authority (moderator)
- AFL, speaker TBD

**11:30 – 1:00 Lunch and Session: Hybrid Solutions – Fiber and Wireless**

The presenters in this session will discuss hybrid solutions using fiber and radio.

- Sheila Wells, Nashville Electric Service (moderator)
- Spectrum Speaker, TBD
- Broadband Speaker, TBD

**1:00 – 2:00 Regulatory Update – FCC Pole Attachment Rules**

How recent regulatory actions will affect your utility's pole attachment process; utility use case on pole attachments; what matters: attachment pricing, shot clock, one touch make ready, and other issues

- Karen Flewharty, Oncor (moderator)
- Eric Langley, Langley Bromberg
- Brett Kilbourne, UTC

**2:00 - 3:00 Broadband Funding Programs**

The FCC has recently announced that \$20.4 billion in broadband funding will become available via the Rural Digital Opportunity Fund (RDOF), with a focus on increased service to rural areas. This session will explore RDOF opportunities, then briefly review USDA and state-administered funding opportunities.

- Sheila Wells, Nashville Electric Service (moderator)
- Conexon, Speaker TBD
- Darren Farnan, United Electric Cooperative
- Regional Local Power Company, TBD
- FCC Representative

**3:00 – 3:15 Break**

**3:15 – 4:15 Broadband Coverage Mapping**

This session will explore the current status of broadband coverage mapping, how the FCC's current coverage maps are used to assess grant eligibility, and what is being done to draw fairer maps.

- Bob Lockhart, UTC (Moderator)

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- Lee Ayers, MCEC
- Government Agency, TBD
- Utility Trade Association, TBD
- Brett Kilbourne, UTC

**4:15 – 5:15      Regional Deployments of Broadband in Rural Environments**

This session will present case studies of rural utilities that have deployed broadband services in their service territories. Speakers will be utility employees.

- ADTRAN speaker (moderator)
- Darren Farnan, United Electric Cooperative
- Jody Wigington, Morristown (TN) Utility Services
- Steve Foshee, Tombigbee Electric Cooperative

**5:30 – 7:00      Reception**

**Friday, November 8**

**7:00 – 8:00 Registration and Breakfast**

**8:00 – 8:15 Welcome Back**

Review highlights from Thursday's sessions

- Sheila Wells, Nashville Electric Service

**8:15 – 9:15 Panel Discussion: Small Cell Revenue Sources – where is there money to be made and how to make money? (Part I)**

Panelists in this session will review revenue opportunities for utilities in the areas of dark fiber, power for small cells, and metering small cells. The session will include a discussion of what a typical 5G installation will look like.

- Allan Bakalar, PeakNet (Moderator)
- Kristie Goodson, Tennessee Valley Authority
- Karen Flewharty, Oncor
- Gary Vondrasek, Jacksonville Electric Authority
- Norine Luker, Crown Castle Corporation

**9:15 – 9:30 Break**

**9:30 – 10:30 Panel Discussion: Small Cell Revenue Sources – where is there money to be made and how to make money? (Part 2)**

Continuing from the previous session, panelists in this session will review revenue opportunities for utilities in the areas of macro towers, RF awareness, lighting, and strand mounts.

- Allan Bakalar, PeakNet (Moderator)
- Anthony Suppa, PSE&G
- Sonny Nuñez, Crown Castle Corporation
- Brian Hurley, PeakNet

**10:30 – 11:30 Pole Attachments Case Study**

Utility speakers will review its existing pole attachment processes, procedures, and standards. This session will dive deeper into utilities' approaches.

- Karen Flewharty, Oncor
- Keith Williams, Georgia Power
- Vaughan Charles, Nashville Electric Service

**11:30 – 12:00 Workshop Wrap-up**

- Sheila Wells, Nashville Electric Service

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**12:00**

**Adjourn the Workshop**