



# ATIS Sustainability in Telecom: Energy and Protection (STEP) Committee Update

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## STEP Overview

STEP helps reduce information and communications technologies' environmental impact as well as operators' energy costs and addresses industry power and protection issues by delivering industry-developed solutions. STEP deliverables are enabling vendors, operators and their customers to deploy and operate more reliable, environmentally sustainable, and energy efficient communications technologies.



# STEP Overview

## **ATIS STEP-NEP: Network Electrical Protection Subcommittee**

STEP-NEP develops system-level Standards and Technical Reports relating to the electrical protection of telecommunications networks.

## **ATIS STEP-NPS: Network Power Systems Subcommittee**

STEP-NPS develops standards and technical reports relating to power systems and power systems interfaces with telecommunications load equipment. In addition STEP-NPS recommends positions on matters within its scope of expertise, under consideration by other national, regional and international standards development organizations (e.g., IEEE, IEC, and UL).



## STEP Overview

### **ATIS STEP-NPP: Network Physical Protection Subcommittee**

STEP-NPP, proposes, develops and recommends Standards and Technical Reports relating to the physical protection and physical design of telecommunications network equipment and the facilities in which they are housed. In addition, the group recommends positions on matters, within its scope of expertise, under consideration by other national, regional and international standards development organizations.



## STEP Overview

### **ATIS STEP-TEE: Telecommunications Energy Efficiency**

STEP Telecommunications Energy Efficiency (TEE) subcommittee develops and recommends standards and technical reports related to the energy efficiency of telecommunication equipment. In addition, STEP-TEE recommends positions on matters within its scope of expertise, under consideration by other national, regional and international standards development organizations.



# STEP-NEP Work Done in 2018/ 2019

- Network Electrical Protection (NEP) Committee reviewed and or edited the following documents on the 5 year review cycle.
- **ATIS-0600313.2013**, *Electrical Protection for Telecommunications Central Offices and Similar Type Facilities*
- **ATIS-0600316.2013**, *Electrical Protection of Telecommunications Outside Plant*
- **ATIS-0600333.2013**, *Grounding and Bonding of Telecommunication Equipment*
- **ATIS-0600334.2013**, *Electrical Protection of Communications Towers and Associated Structures*
- **ATIS-0600308.2008**(R2013), *Central Office Equipment - Electrostatic Discharge Immunity Requirements*
- **ATIS-0600401**, *Network to Customer Installation Interfaces - Analog Voice grade Switched Access Lines Using Loop-Start and Ground-Start Signaling*





# STEP-NEP Work Done in 2018/ 2019

- The NEP committee also produced one new standard,
- **ATIS-0600012.06** *Electrical Protection for Ethernet Radio Systems* which is part of the family of documents under **ATIS-0600012** *Electrical Protection Considerations for Broadband Systems*
- The NEP committee elected a new board in 2018 with Daniel Ashton from CenturyLink elected as the NEP chair, John Fuller from AT&T was elected Vice-Chair.
- The NEP committee, at their face to face meeting in February 2019, decided to withdraw the following issue from the editorial process due to lack of interest by communications providers.
- **Issue 0157**, Electrical Protection (including Lightning, Power Fault, and Grounding) for Reverse Powering from Customer Premises



## STEP-NEP Work Done in 2018/ 2019

- They also completed and editorial review of **ATIS-0600337** *Requirements for Maximum Voltage, Current, and Power Levels Used in Communications Transport Circuits* and began work on **Issue 0176**, *Translation Table of Safety Related Voltages and Currents*
- This table, when completed, will provide cross references between standards for various safety relate voltages and currents as they apply to the communications industry.





# STEP-NPS Work Done in 2018/ 2019

## Planned Work

- ATIS-0600017.2014, Non-Halogenated DC Power Wire and Cable for Telecommunications Power Systems
- ATIS-0600319.2014, Equipment Assemblies - Fire Propagation Risk Assessment Criteria

## Important Standards Completed

- ATIS-0600035.2018 Recommended Maintenance Routines and Frequencies for Central Office Backup Power
- ATIS-0600030.2016 Line-Powering of Telecommunications Equipment on OSP Copper Twisted Pair Loops



## STEP-NPP Work Done in 2018/ 2019

- Currently STEP-NPP is working on rounding out our specifications. We have a full family of document for central office and data centers but have holes in our family for outside plant. The goal of the committee is to align with ETS and other test documents (not in the telecom family) to minimize testing cost and allow customers to test to one document and get multiple acceptance.



## STEP-NPP Work Done in 2018/ 2019

- ATIS-0600319 Equipment Assemblies-Fire Propagation Risk Assessment Criteria
- -Adding in testing for Outside Plant Equipment (OSP)
- -This draft is in for review and we should complete it at AMOC
- Rain testing- Investigating a hybrid test that will meet the requirements of IEC 60529 (IP testing) GR-487, NEMA and ETS 300-019
- Following this we will continue with additional new test documents with Salt fog, dust testing (aligning with IP) and security of cabinets.



Questions ???