1. **Pipelines and Transmission and Distribution Lines**
   Installation of gas pipelines near electric supply lines is of high interest to GLIG members. It is critical to ensure adequate separation distance to protect the safety of both the pipeline and the powerline structures. Issues include induction, arcing and contact voltages. Other issues include AC corrosion as well as excessive time required for mitigation studies due to utility delays in gathering data. A list of pipeline topics is as follows:
   - Minimum arcing distance between buried pipelines and transmission line footings
     - Mitigation of induction issues
     - Electric supply line data collection
     - AC Corrosion on Underground Steel pipelines caused by Induced AC Voltage
     - Electrical Coordination between Pipelines and Transmission Lines
   - Studies regarding pipelines

2. **Copper Theft**
   Copper theft from utility grounding systems is a critical issue to GLIG members. Of primary interest are prevention methods and techniques including alternative conductors and installation methods. Other aspects of copper theft include:
   - Utility experiences
   - Risk to infrastructure both now and in the future particularly since the price of copper is expected to increase significantly in future years

3. **Personal Protective Grounding**
   Personal Protective Grounding (PPG) is key to ensuring safety of utility workers, public and equipment. There are many aspects of PPG of interest to GLIG members. Included in these are:
   - PPG methods and practices
   - Testing of PPG cables and hardware
   - PPG Safety training
   - Managing Induced Voltages and Currents on Power Systems
   - Testing of Temporary Grounding Systems
   - Portable protective ground clamp selection & conductor size
   - Integrity testing of PPG connection points within a grounding system
   - Experiences regarding temporary protective grounding
   - Bracket grounding versus single point grounding
   - Equipotential grounding practices and procedures
   - Measurement and monitoring of hazardous voltages related to PPG including actual measurement of Ground Potential Rise

4. **Distribution & Transmission System Grounding**
   All aspects related to grounding on both the Distribution and Transmission system are important to GLIG members. Some of the current issues discussed include:
   - Neutral Isolation Devices used on the Distribution System
   - Grounding in high resistivity and/or mountainous areas
   - Distribution system grounding methods and standards
   - Low voltage system grounding
• Transmission Line Switch Grounding
• Stray Voltage on the Distribution system including
  o 60 Hz stray voltage
  o DC Stray Voltage
  o Third harmonic stray voltage
• Induced Voltage on Fences in powerline Right of Ways
• Current Splitting under fault conditions between substation and distribution neutral ground systems
• Ensuring safety around transmission line towers in high profile urban areas
• Grounding of transmission line overhead shield wires including issues related to OPGW use as well as applications using segmented ground systems

5. **Lightning Protection and Performance**
Both lightning protection and lightning performance of electric utility systems are important to GLIG members. This includes safety to people and equipment, response to outages as well as prediction and location of lightning events. Included in the lightning issues recently are:
• Transmission Line lightning protection
  o Overhead Shield Wire Grounding
  o Methods, equipment and standards
  o Line surge arrester application versus overhead shield wires
• Lightning Arrester Application
• Proper arrester locations for Distribution overhead and underground systems
• Reliability performance Targets for Lightning Protection
• Using BIL to improve Distribution lightning performance
• Lightning Detection Systems
  o Accuracy of data from lightning detection networks
  o Correlation of outages due to lightning strikes along with response time

6. **Substation Grounding**
Proper design, construction and testing of substation grounding systems is of high interest to GLIG. Included in this is the software used to design and the equipment used in testing. The risk of error resulting in unsafe conditions both inside and outside the substation is a concern. Recent GLIG discussions have included:
• Ground Potential Rise along with Step/Touch Transfer Potentials outside of substations
• A cost-effective ground grid, balance between cost and effectiveness
• Guidelines for auditing and approving third party engineering grounding system designs
• Evaluation of design accuracy and condition of existing ground grids
• Comparison of grounding design software alternatives
• Protection of Telephone systems in and around Substations
• Substation Ground Potential Rise (GPR) event monitoring
• Prioritizing substation sites to mitigate grounding maintenance issues
• Auditing of existing sites and verification that existing ground grids are installed correctly or whether a new ground grid should be installed
• Substation grounding with high resistivity soil conditions