

Technology Applications Center

Test Your Technologies on a LIVE Smart Grid

Ameren Illinois' Technology Applications Center (TAC) is a unique resource for entrepreneurs and innovators to test programs, technologies, business models and other Smart Grid-related activities while connected to the grid.



Located in Champaign, Illinois, the Ameren Illinois TAC Offers the Following Capabilities:

- Connection of Smart Grid devices into a live utility distribution system at 69KV, 12KV (underground/ overhead) or 120/240 volts for the purpose of evaluating the devices functional characteristics. (A)
- Data capture of electrical characteristics utilizing SEL-351A (PMU) and analysis of data via SynchoWave Visualization and Analysis software. This would also provide Data Logging via EDNA Historian capable of using protocols that include DNP3, Modbus, IEC61850, SNMP, ICCP, OPC, etc.





 Access to SCADA and Relay control functionality to enable evaluation, monitoring, and controls of energized SG devices with the ability to collect, monitor, and record all nonproduction network control traffic between two devices via a network tap. (B)

TAC Capabilities Continued:

- Provide a testing platform to allow for Cyber-Security testing, DNP3, ModBus, and SCADA communications architectures commonly used by Utilities. Centralized Authentication Server available for testing devices or security scenarios using devices that will authorize and authenticate using RADIUS and LDAP. (C)
- Test and evaluate Home Area Network (HAN) technologies that are Commercial-Off-The-Shelf (COTS) devices that will communicate via LAN, Wi-Fi, ZigBee to appliances commonly used in residential housing. i.e (Washer/Dryer) (D) This area of testing would also include Advanced Metering Infrastructure (AMI) with HAN. (E)







To apply for testing resources, contact TAC with the following information:

- Company and contact details address, phone and email
- Description of the type of Smart Grid program, technology, business model or other Smart Grid-related technology or service to be demonstrated in the Test Bed
- Description of potential testing required by Ameren Illinois
- Anticipated timeline that will be necessary to test





Want More Information?

Contact Us:

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