Anterix

Utility meets Connectivity. **NOW.**

It's time to start fortifying and modernizing the grid. Not tomorrow. **TODAY.**

The power of private wireless broadband is ready. **NOW.**

We've brought together leading technology innovators to develop products and solutions **ON ONE PLATFORM,** the Anterix Active Ecosystem, aimed at making our energy future brighter and smarter and the future is now.

Start maximizing the power of Private Wireless Broadband. **TODAY.**

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900 MHz Private LTE is the Foundation for the Future

A communications infrastructure built on utility-grade 900 MHz Private LTE is a smart, long-term solution that enables utilities to achieve their goals—STARTING NOW.

AMEREN

Use Cases:

Ameren will deploy PLTE that will provide critical communications services for its service territories in Missouri and Illinois.

Ameren successfully piloted a private LTE network in support of its Smart Energy Plan which includes investments to strengthen the grid while providing clean and reliable energy. The pilot demonstrated 14 different use cases leveraging Anterix's spectrum under an FCC experimental license.

This private LTE network will advance the reliability and security of the electric grid through a range of broadband-enabled applications and services, including the integration of distributed energy resources to help us meet our net-zero carbon emissions goal by 2050. "To enable the grid of the future, the system requires a smarter, stronger and more secure communications network with far greater bandwidth. Ameren envisions a future where broadband plays a key role in the control and management of our network, providing enhanced communication with coworkers, resulting in a better experience for our customers. Ameren intends to use a private LTE network for a wide range of applications slated to expand over time."

Bhavani Amirthalingam

Senior Vice president and Chief Digital Information Officer for Ameren

EVERGY

Use Cases:

Evergy plans to utilize the Anterix spectrum to deploy a private wireless broadband communications network using LTE technology to support its grid modernization initiatives.

The private LTE network using Anterix's 900 MHz spectrum will enable a secure broadband communications capability throughout the combined service territory and facilitate the unified adoption of smart grid applications.

Initially Evergy wants to use private LTE for resiliencyfocused applications, centered on elements in its power facilities that detect and react when events like severe weather occur.

Evergy also is using private LTE with 900 MHz for SCADA communications, which is how the utility communicates with and monitors components throughout the network. Eventually new use cases will be built on top, utilizing data and analytics to aid decisioning in a shift to predictive rather than responsive maintenance and detecting problems before they become major issues. This could include detecting spikes in voltage outside the norm, or heat sensors and cameras used for thermal sensing within a substation to keep an eye on temperature.

Will give the utility access to the broadband airwaves to support the deployment of a private LTE system that is expected to enable critical smart-grid applications.

"Smart grid technologies have a growing importance for our grid modernization efforts as we continue to transform our operations to a focus on clean, safe and reliable energy. Today's agreement with Anterix provides a key component of the communications foundation required to help advance these initiatives, which are not only important for increased safety and efficiency, but are also crucial to maintain a resilient grid in the future."

Kevin Bryant

Executive Vice President and Chief Operating Officer at Evergy

LOWER COLORADO RIVER AUTHORITY

Use Cases:

Lower Colorado River Authority will be sharing its new capability when it comes online with a variety of retail utilities, schools, public transport systems, and others who can benefit from broadband.

As part of the LCRA Agreement, Anterix and LCRA intend to collaborate on accelerating utility industry momentum for 900 MHz private networks and the Anterix Active Ecosystem. The Agreement also contemplates that the parties will collaborate to help facilitate a broader deployment of 900 MHz private wireless broadband networks throughout Texas.

The new 900 MHz broadband licenses will enable LCRA to move from narrowband to next generation broadband and provide mission-critical data and voice services within LCRA and to more than 100 external customers such as electric cooperatives, schools and transit authorities across more than 73,000 square miles.

The agreement will support LCRA's deployment of a private LTE network which will provide a host of capabilities including grid awareness, communications and operational intelligence that will enhance resilience and spur innovation at LCRA.

"This will help us take our wireless communications system to the next level. The network will provide a host of upgrades that will benefit LCRA and our customers by significantly improving data transmission, overall communications and resilience."

Ken Price LCRA Chief Operating Officer

SAN DIEGO GAS & ELECTRIC

Use Cases:

San Diego Gas & Electric plans to initially use its private wireless LTE network for a "Falling Conductor Protection (FCP) system," which relies on low-latency communications to detect a powerline that has failed and then de-energize it before it comes in contact with the ground. Such technology could potentially prevent the types of devastating wildfires that destroyed the town of Paradise, California, in 2018.

The agreement with Anterix will support SDG&E's deployment of a private LTE network to cover its service area across San Diego County, Imperial County and portions of Orange County. Overall, the utility serves about 3.6 million people.

Anterix and SDG&E also said that they plan to collaborate to accelerate industry momentum for private networks in several areas including support of a technology accelerator focused on grid modernization innovation and wildfire mitigation, support of private LTE systems as a critical component of grid modernization, support for the importance of low-band spectrum as a complement to mid-band spectrum such as Citizens Broadband Radio Service (CBRS) in the deployment of wide-area private LTE systems, and support for collective industry action to create utility-specific networking benefits and promote LTE ecosystem expansion through participation in efforts like the Utility Broadband Alliance (UBBA).

Anterix announced a \$50 million deal with San Diego Gas & Electric (SDG&E) that will result in the utility becoming the license holder for 900 MHz broadband spectrum that will be used to support a private LTE network that will support smart-grid and wildfiremitigation initiatives.

We recognize that our wildfire preparedness efforts are not without significant impacts to our customers, who have shown incredible patience and understanding as we advance our collective goal to protect public safety. The pandemic and last year's extreme weather events not only magnified our responsibility to bring forth solutions that help reduce those impacts, which we will work every day to do, but they also reinforced our commitment to build a more resilient electric system to safeguard our region."

Caroline Winn

SDG&E Chief Executive Officer

XCEL ENERGY

Use Cases:

Xcel plans to use the spectrum to deploy a private LTE network to support its grid modernization efforts for its 3.7 million electricity customers and 2.1 million natural gas customers.

They will use the new technologies to help respond faster to local power outages, support communications for field operations, and smart meters to give customers additional data about their energy use.

The utility also pointed to cyber protection for the critical infrastructure and said the network could eventually be extended for more automation throughout urban and remote rural locations.

"Xcel Energy is focused on delivering reliable, affordable and sustainable energy to the states, the communities and the customers we serve. Our commitment to a clean-energy future requires a modern grid capable of integrating a significant influx of distributed, renewable energy resources. Secure, robust broadband communications is a critical element of the modern grid."

Tim Peterson

Xcel Energy's Senior Vice President and Chief Technology Officer

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