

 ePole®

The Future of Small Cell Infrastructure

About Enersphere

Enersphere Communications (“Enersphere”) was founded in 2011 and is located in Atlanta, GA. Enersphere develops, sells and finances mobile communications and electric utility infrastructure, including an integrated outdoor cell site utilizing modular composite pole technology. Our solution, the ePole, efficiently and economically expands mobile capacity and coverage, strengthens electric distribution networks and enables public safety applications to create a safer, more eco-friendly world.

Mobile data growth requires small cell infrastructure

The global popularity of smartphones, tablets and laptops with larger screens and sharper images is driving mobile data traffic at a CAGR of 60%. By 2018, the average smartphone will generate 2.7 GB of mobile data traffic, or 11 times the 2013 traffic. The most efficient way to improve capacity is by reducing cell radius, thus creating a more densely packed network of smaller cells. Industry analysts predict \$22B will be spent on outdoor small cell infrastructure by 2019. The majority of these expenditures will be 3G/4G and LTE Microcells and Picocells reaching over 3.5M globally. ePoles enable mobile network operators (“MNO”) to add capacity and extend coverage to areas that were uneconomical or difficult to cover due to zoning restrictions.

What is an ePole®?

The ePole is a multi-purpose, safe and aesthetically pleasing cell site that provides a seamless option for wireless service providers to transition economically from towers to

small cell infrastructure. With patents pending, the ePole includes an integrated pole-top antenna with LED luminary, pole-mounted radio and battery enclosure, antenna cables, power and grounding systems, plus a modular, composite pole. In addition, the optional WiFi capability prepares service providers with data offloading capacity in highly congested areas of the network to ensure the quality of data service. ePoles are available in 35’ (10.6m), 45’ (13.8m), 50’ (15.2m) and 70’ (21.3m) total lengths. Mobile radios, batteries and other equipment selected by the service provider can be pre-installed and tested in the enclosure before shipment to the installation site. The antenna cables, power and ground wires that traverse from the antenna to the radios, and equipment located in the pole-mounted cabinet are safely concealed inside the composite pole to improve safety and preserve the aesthetic value in the community.

How do you benefit from an ePole®?

To satisfy the demand for mobile data and coverage, MNOs must deploy small cells within days on streetlights, utility poles and buildings, which involves negotiating attachment rights, securing power, and complying with jurisdictional and environmental requirements. Traditional macro cell site deployment processes that require months to complete will not work. The ePole, designed to meet the most stringent safety and performance standards of the mobile communication and electric utility industries, is a safer, stronger, lighter weight and more visually appealing solution that benefits multiple entities, helping expedite the deployment process.





The ePole®

Multi-purpose mobile communications infrastructure providing solutions for multiple parties:

- Mobile network operators
- Electric utilities
- Municipalities
- Resorts and hotels
- Commercial real estate



Benefits of the ePole®

Generates revenue for multiple parties

The ePole enables electric utilities, municipalities and public safety organizations to simultaneously derive operational and economic benefits from the same mobile communication infrastructure.

By expediting the delivery of mobile data capacity and coverage, MNOs generate revenue sooner, reduce TCO and retain subscribers.

Electric utilities generate electricity revenue and receive right-to-use fees from the ePole owner, plus retain control of the composite pole that will strengthen its distribution network. Municipalities can access the IP-controlled public safety warning and weather alert systems; attach video surveillance and WiFi devices; receive franchise fees from the ePole owner, plus generate revenue from advertising, location-based marketing and other features.

Safety first

The ePole is structurally designed to meet the U.S. NESC standards and the most stringent wind requirements of the mobile communications tower industry (TIA 222-Rev G).

In addition to being non conductive, eco-friendly and fire retardant, the modular composite pole is safer than any wood, steel or concrete pole as it bends or breaks when hit by a vehicle.



All radios, network equipment and batteries are securely installed in an environmentally controlled, GR-487 compliant pole-mounted cabinet. The ePole web-based management system enables authorized users to monitor ePole assets, cabinet security and environmental conditions, plus automatically or instantaneously control the LED lighting for public safety, severe weather and community events.

Community appeal

Unlike other small cell deployments that mount radios, cabinets and antennas directly on utility poles and streetlights, the ePole safely conceals radios, cables and other equipment in the composite pole and enclosure. The composite pole, currently available in gray and brown colors, has a continuously smooth taper and graffiti-resistant finish. Other ePole colors are

available upon request. The ePole can be customized to include other equipment, applications and features such as WiFi, video surveillance cameras, advertising banners and traffic sensors.

Ease of deployment

The ePole is a multi-purpose mobile communication cell site that includes:

1. a nested, modular composite pole for easier shipping and handling;
2. a pre-assembled and tested antenna and luminary assembly;
3. a preconfigured cabinet that can support up to six radios, network equipment and batteries;
4. pre-cut and pre-connected cables.

Typically, two trained installers with two bucket trucks can install an ePole in a day. Radio and network personnel can stand on the ground to perform integration and optimization work.

For more information, please contact:
Enersphere Communications, LLC
info@enersphere.com
www.enersphere.com