

Watt's the Fiber Plan? Turning Power Lines into Data Highways

Are you in POWER?



This case study demonstrates how a fiber network can be built with your existing power lines.



UTILITY APPLICATION CASE STUDY

UTILITY APPLICATION ENERGY PROVIDER

www.e-knet.com



DIRECT BURIED MICRODUCT WITH POWER LINE

Developing Cost Reduction Measures for Communication Duct Installation In Response to the Increasing Undergrounding of Power Facilities and Expansion of Information Communication Infrastructure



WHY DO POWER COMPANIES INSTALL FIBER OPTIC CABLES WITH POWER LINES?

Power companies often install fiber optic cables alongside underground power lines because it helps them:

Monitor and Control the Grid

Fiber enables real-time monitoring, fault detection, and remote control of equipment, making the grid smarter and more efficient.

Keep the Grid Secure

Fiber offers safe and reliable communication, protecting data from interference and cyber threats.

Integrate Renewable Energy

It supports solar, wind, and other energy sources by ensuring smooth communication with the grid.

Use Smart Meters

Fiber helps collect real-time energy usage data, improving efficiency and allowing for flexible pricing.

Make the Grid More Reliable

Underground fiber is less affected by storms and acts as a backup communication system.

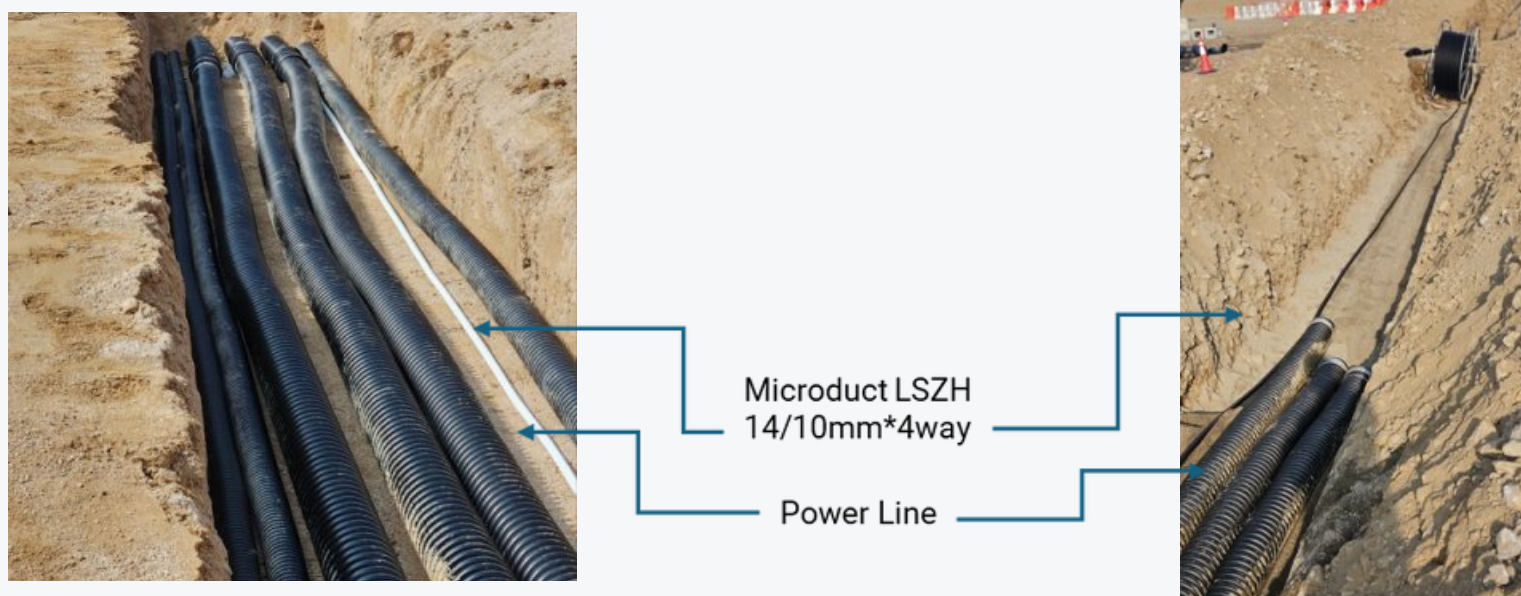
NEED THE SPACE BETWEEN?

Maintaining separation between power cables and fiber optic cables is crucial for safety, performance, and compliance with regulations. While fiber optics are less susceptible to Electromagnetic Interference (EMI), following spacing and material standards protects both systems and ensures long-term reliability. Always check local codes and utility guidelines for precise requirements

Can be installed in direct contact with power line.

How?

Our customer used LSZH (Low Smoke Zero Halogen) or Riser Rated microduct.



CASE STUDY

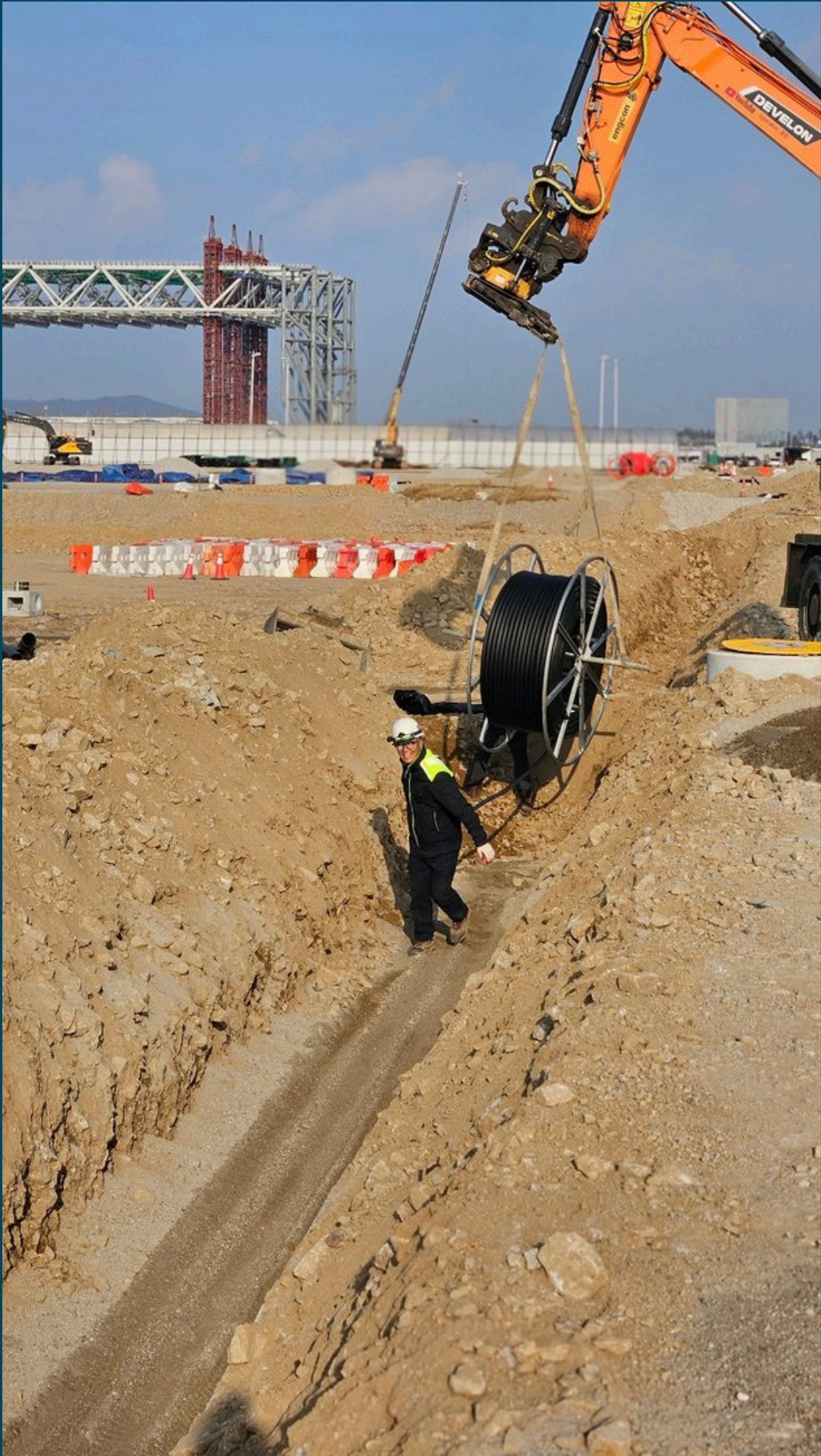
INSTALLATION



KEPCO

(Korea Electric Power Corporation, a South Korean power provider.)

- Corrugated Power Pipe(175mm)6 sets
- Microduct(for fiber optic) 14/10mm 4way 1 set
- Cable installation- Blowing ABC



Actual Microduct installation
The installer skipped using the machine to show everyone just how lightweight the duct is—it's super easy to handle without any heavy equipment. Bet they even got a round of applause for that.

NEED MORE
TIPS?



inquiry@e-knet.com

