

UNDERGROUND SOLUTIONS

## WE DO THAT ... & MORE

# Safe & reliable underground connections

Michels Underground Cable, Inc. combines experience and equipment to install underground cables for power transmission, power distribution, renewable energy and communication networks. Depending on system needs, our crews directly bury or install protective casing including duct banks for solid and stranded conductors and copper, fiber optic and coaxial cable. Our crews work throughout the United States to deliver solutions for current and future needs.

www.Michels.us









## UNDERGROUND ELECTRIC T&D

Burying underground electric transmission and distribution lines can improve reliability and resiliency, contributing to the goal of a reliable electrical grid. Michels Underground Cable uses a variety of methods to install new cables and convert overhead networks to underground networks in residential, business, metropolitan and rural settings.

#### Our installation methods include:

- Duct banks
- Cable pulling
- Maintenance
- Cable plowing
- Directional drilling
- Fusing & jointing
- Cable replacements

## COMMUNICATION UTILITIES

Partnering with customers to design, build and upgrade systems is critical to success. Our experience runs the gamut from safe, secure, networks for critical data centers to hundreds of miles of fast broadband allowing rural communities to thrive.

#### Our specialties include:

- Rural broadband
- Data centers
- Aerial construction & conversions
- Fiber networks

## DUCT BANK CONSTRUCTION

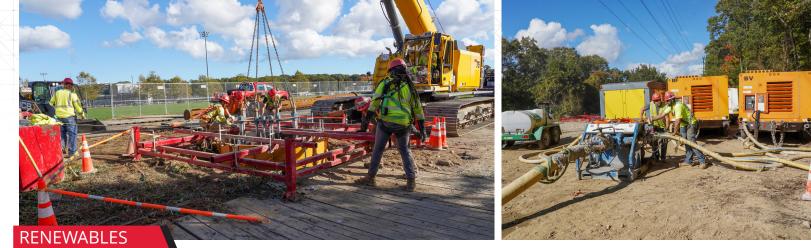
We build safe, protected pathways for electrical transmission, electrical distribution, data and communication lines. From planning and excavation to installation and site restoration, we provide turnkey conduit systems to organize and protect cables, minimizing risk of damage from external factors and providing safe, convenient access points for future maintenance needs.

#### Our capabilities include:

- High-voltage electrical lines
- Offshore wind projects
- Transmission lines
- Distribution lines
- Data centers
- Communication networks

## PRECONSTRUCTION SERVICES

Michels offers preconstruction services to unite multi-disciplinary experts, ultimately reducing risk and setting the course for project success. We offer alternative delivery models to maximize opportunities for constructability review, value engineering and innovation while saving time and money and delivering turnkey projects.



#### **Offshore Energy**

Michels Underground Cable and the Michels Family of Companies provide complete solutions from bringing power from offshore wind turbines to the onshore energy grid. Our self-performed services range from subsea cable laying and precisely drilled shore approaches to conductors and substations, and from preconstruction services including

constructability reviews and design services to transmission power lines and distribution grids. Michels Underground Cable's experience with directly burying electrical power and communication lines as well as fusing and installing duct banks sets critical cables up for long-term reliability.



**Energy Collection Systems** 

Installing underground cable networks unlocks the potential of renewable energy generation facilities. These sophisticated networks consist of insulated conductors able to transport energy generated from individual turbines or across the electrical system.



**Control & Data Systems** 

Buildings control and data communication networks allow real-time monitoring and control of weather-influenced renewable energy systems, like solar and wind. Buried directly or in conduit between above-ground structures, these networks create a critical link in a balanced energy system.



#### **Duct Banks**

Getting energy from renewable generation facilities to the local grid requires careful protection of transmission and distribution lines against soil, weather, ground movement and other hazards. Michels Underground Cable installs duct banks consisting of a few conduits or a complex array.



Rail plowing is a quick, effective way to install cables and conduit along railway rights-of-way. Our proprietary rail-mounted plows facilitate the installation or upgrade of fiber optic cable and signal wire.

We designed our rail plowing equipment with flexibility in mind, allowing it to bury a few conduits to more than two dozen conduits simultaneously. Our on-rail ballast clean-up equipment gets rail lines back to active use almost immediately.

#### We Do That

Underground electric T&D Communication utilities Duct bank construction Energy collection systems Control & data systems Rail plowing Preconstruction services

### .. & More

Horizontal directional drilling Direct Pipe Microtunneling

Joint installations

**Upgrades & repairs** 

- **Overhead conversions**
- Maintenance holes
- Transformers
- Pads



#### **Distribution networks**

Did you know Michels constructs and maintains natural gas distribution systems and duct bank networks throughout the United States? We are equipped for work in urban and rural areas.



Moffett Federal Airfield Mountain View, CA 2018-2020

- 10 miles of duct bank systems
- 144 maintenance holes
- 15kV cable installation
- Electrical and communication installation separation



**Shore-to-island connections** *Beaver Dam, WI* 2023

- 2 HDDs (660 feet and 1,410 feet)
- 2-inch plastic conduit
- Power cable pulled inside conduit
- Completed in 2 weeks



**Rural broadband FTTH system** *Gage County, NE* 2023

- 414-mile fiber optic network
- Direct bury cable duct
- 75% plowing, 25% directional boring
- Connection box installation



**System modernization reliability project (SMRP)** *Northern Wisconsin* 2014-2021

- Overhead-to-underground conversion
- 1,000 miles of new line
- Directional boring and plowing
- Energization & cutover at homes



Send RFI/RFP's to Cablebids@michels.us



An overview of the collective strength of the **MICHELS**' Family of Companies











Visit our website to learn more about our underground solutions.