

IPL FACT SHEET

INDIANAPOLIS DOWNTOWN UNDERGROUND NETWORK

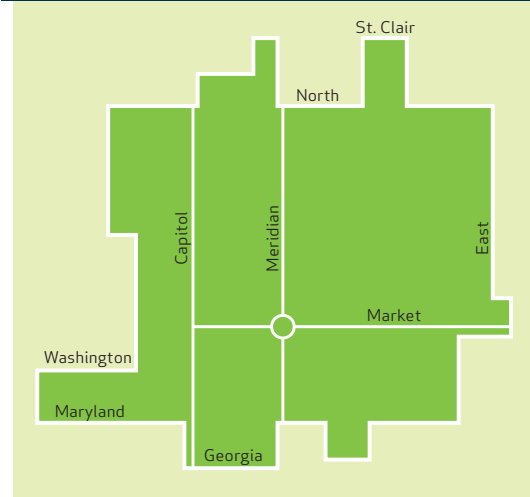


Indianapolis Power & Light Company operates a complex underground network which serves more than 2,600 downtown Indianapolis customers. Our skilled underground technicians work every day to ensure a safe and reliable network.

Anatomy of Indianapolis' underground systems

- IPL manhole and duct lines (conduits)
- IPL power cables
- IPL street lighting cables
- IPL transformer vaults
- Steam, natural gas and chilled water pipe system
- Sanitary and storm sewer pipe system
- Water pipe system
- Cable television and telecommunication companies' manholes, pullboxes, duct lines and fiber optic cables

UNDERGROUND SYSTEM DOWNTOWN COVERAGE AREA



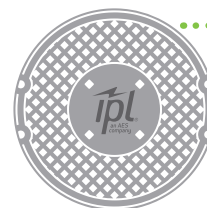
By the numbers: IPL underground network infrastructure

72.2 mi. of primary cable operating at **13,200** volts

37.5 mi. of secondary cable operating at **208** or **480** volts

Serves **2,600** customers

with a peak demand of **114MW** : **3.6%** of total system load



1,214 MANHOLES

140 NETWORK VAULTS

containing **315** NETWORK TRANSFORMERS

Vaults are of various sizes and contain one to four transformers, switches and street lighting equipment



IPL FACT SHEET

INDIANAPOLIS DOWNTOWN UNDERGROUND NETWORK

IPL downtown network protection

Indianapolis Power & Light Company takes steps year-round to provide safe and reliable service downtown including inspections of manholes every three years and vaults every two years. Here is a snapshot of our completed and ongoing efforts.

Network Protective Initiatives

Enhanced Coordination with Other Underground Facilities	✓
Enhanced Inspections and Technology	✓
Inspection and Replacement of Network Protectors and Transformers	✓
Improved Asset Management	✓
Downtown Scada Project	✓
GIS Mapping and Modeling	✓
Oil Testing and Fire Retardant Fluid	✓
Replace All 480-Volt Network Protectors	●
Network Event Response Drills	●
Conduit Review of Gateway Vault Communications	✓
Enhanced Network Protector Inspection Process	✓
Enhanced Records Process	✓
Install Additional Locking Manhole Covers	●
Accelerated Inspections of Manholes and Vaults (Utilizing Mutual Utility Assistance Resources)	●

- ✓ = Completed & Ongoing
- = Ongoing and On Track for Timely Completion

Manhole Inspection focus areas:

- High ambient temperatures
- Structural integrity in manholes
- Damage caused by steam leaks
- Condition of splices and cable insulation

Vault Inspection focus areas:

- Natural gas piping system leaks
- Undermining of electric facilities caused by pressurized water system leaks or sanitary/storm sewer piping leaks
- Corrosive effects of street and sidewalk de-icing chemicals

External challenges

Other underground facilities

- District steam heat system — excessive heat, thermal damage
- District cooling system — water flow, structural damage and faults
- Drinking water system — water flow, structural damage and faults
- Natural gas system — natural gas leaks, combustible gas source
- Fiber optics and telecommunications — installation and system maintenance

Other environmental factors

- Road salts and other ice melting chemicals — corrosion
- Miscellaneous chemicals such as gasoline, anti-freeze, oil, etc. — fire hazard
- Flooding from rains — faults
- Ongoing downtown construction projects
- Customer-owned equipment failures impacting IPL system

MEDIA CONTACT

Brandi Davis-Handy
Director, External Communications

Indianapolis Power & Light Company
Office: 317.261.8423
24-hour pager: 317.393.7584
brandi.davishandy@aes.com

Find us on social!

