ArcGIS Electric Network data model

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Distribution network

Features in the electric distribution network through which electricity flows

(C) can be a container
(T) can have terminals
(S) is a structure

An electric distribution device transforms, switches, interrupts, regulates, measures, or otherwise controls the flow of power.

An electric distribution assembly is a container of distribution devices, distribution junctions, and distribution lines.

geometrically connected to

Electric Distribution Line
line feature class

Unknown
Busbar
Connector
Low Voltage
Medium Voltage
Neutral

geometrically connected to

An electric distribution line is a segment of wire which conducts electricity.

Electric Distribution SubnetLine
line feature class

A union of connected lines features used to identify and map circuits.

connected to

Electric distribution junctions are used to establish associations between the distribution network and the structure network.

Electric Distribution Junction
point feature class

Unknown
Connection Point
Ground
LineEnd
Riser

geometrically connected

Electric Distribution Device
point feature class

Unknown
Arrester
Capacitor
Circuit Breaker (T)
Fuse
Generation
LineMonitor
Network Protector (T)
Service Point
Street Light
Switch
Transformer (T)
Voltage Regulator

connected to

connected to

Electric Distribution Assembly
point container feature class

Unknown
Arrester Bank (C)
Capacitor Bank (C)
Circuit Breaker Bank (C)
Fuse Bank (C)
ServiceLocation (C)
Switch Bank (C)
Transformer Bank (C)
Voltage Regulator Bank (C)

contains

contains

is attached to

contains

contains

Structure network

Features that physically support devices and lines in other networks

contains

Association types

shows which features can be connected geometrically or by association

shows which features can be connected by association

shows which features can be attached to structural features

shows the association between container features and contained features

is attached to

contains

is attached to

Structure Junction
point container feature class

Unknown
Cabinet (C)
Guy
Handhole (C)
Junction Box (C)
Manhole (C)
Pad (S)
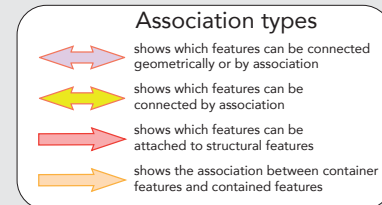Pedestal (S)
Platform (S)
Pole (S)
Switchgear (C)
Vault (C)

geometrically connected

contains

is attached to

contains

Structure Line
line container feature class

Unknown
Aerial Support
Duct (C)
Duct Bank (C)
Trench (C)

geometrically connected

contains

A structure line is a component which does not have power flowing through it but is connected to the distribution network.

A structure junction is a component which is attached to the distribution network but does not have power flowing through it.

Structure Boundary
polygon container feature class

Unknown
Cabinet (C)
Storage Facility (C)
Substation (C)
Vault (C)

A structure boundary is a dense collection of features.

contains

A structure boundary can contain every type of network and structure feature.

Electric Distribution Line
Electric Distribution Junction
Electric Distribution Device
Electric Distribution Assembly
Structure Line
Structure Junction
Structure Boundary