Version 3.4 – Version 4 Changelog

Information About Previous Releases

Electric Utility Network Foundation Release Notes

Utility Network Properties

- Categories
  - The following categories were added
    - Cable Pathway
    - Cable Support
    - Duct Bank
    - Duct
    - E:Generation Storage
    - E:Voltage Transformer
- Terminal Configurations
  - The following terminal configurations were added
    - Step Up Transformer
    - Communications Port
    - Communications Equipment
- Diagram Templates
  - Basic
    - Updated
  - CircuitSwitching_FromMediumCB
    - Deleted
  - CollapseContainers
    - Updated
  - ExpandContainers
    - Updated
  - InterconnectedSubstations_FromSubstations
    - Deleted
  - Switches_FromDistribution
    - Deleted
  - Electric DistributionCircuitSwitching
    - Added
  - Electric DistributionInterconnectedSubstations
    - Added
  - Electric DistributionSubstationBus
    - Added

    - Electric DistributionSwitching
        - Added
    - Electric SubTransmission
        - Added
    - Electric Transmission
        - Added

Classes

- ElectricAssembly
    - Fields
        - lifecyclestatus
            - Domain Lifecycle_Combined set for Subtype:21,22,23
        - material
            - Removed
        - spatialconfidence
            - Domain Spatial_Confidence set for Subtype:21,22,23
        - spatialsource
            - Domain Spatial_Source set for Subtype,21,22,23
        - symbolrotation
            - Domain Symbol_Rotation set for Subtype,21,22,23
- ElectricDevice
    - Fields
        - addpowerrating
            - Removed
        - alternatevoltagelinetoground
            - Removed
        - alternatevoltagelinetoline
            - Removed
        - coolingtype
            - Added
            - Domain Electric_Transformer_Cooling set for Subtype:8, 11, 24, 35, 38, 39
        - electricdecimal1
            - Removed
        - electricdecimal2
            - Removed
        - electricdecimal3
            - Removed
        - electricdecimal4
            - Removed

- electricdecimal5
  - Removed
- electricdecimal6
  - Removed
- equipmentconfiguration1
  - Removed
- equipmentconfiguration2
  - Removed
- equipmentconfiguration3
  - Removed
- powermeasure
  - Removed
- powerrating
  - Removed
- powerrating2
  - Removed
- powerrating3
  - Removed
- powerrating4
  - Removed
- powerrating5
  - Removed
- remotecontrol
  - Removed
- buckbandwidth
  - Added
- currentdevicestatus
  - Domain currentdevicestatus set for Subtype:39,40,41,42
- ctratio
  - Added
  - Domain Electric_Winding_Ratio_Long set for Subtype:39
- devicestate
  - Added
  - Domain Electric_Device_State set for Subtype:39,40
- equipmenttype
  - Domain Electric_XFR_Type set for Subtype:39
- gridsidecouplingimpeadance
  - Domain Electric_Impedance_Range set for Subtype:39
- grouding
  - Domain Electric_Grounding_Type set for Subtype:39,40,41,42
- lifecyclestatus

        - Domain Lifecycle_Status set for Subtype:39,40,41,42
- loadtapchangepercent
    - Added
    - Domain Electric_Tap_Change_Percent set for Subtype:39
    -
- loadtapchangerminimumchange
    - Added
    - Domain Electric_Load_Tap_Bandwidth set for Subtype:39
- loadtapchangerupperbandwidth
    - Added
    - Domain Electric_Tap_Maximum_Change set for Subtype:39
- lowerrange
    - Added
- lowerrangemetric
    - Added
- maintby
    - Domain Asset_Manager set for Subtype:39,40,41,42
- manufacturer
    - Domain Electric_Equipment_Manufacturer set for Subtype:39,40,41,42
- maximumbuck
    - Added
- maximumpower
    - Added
    - Domain Electric_Medium_Voltage_Transformer_VA set for Subtype:39
    - Domain Electric_Low_Voltage_Fuse_Continuous_Amps set for Subtype:40,41
- maximumoperatingvoltage
    - Domain Electric_Medium_Voltage_Nominal_Voltage set for Subtype:39,41,42
    - Domain Electric_Low_Voltage_Nominal_Voltage set for Subtype:40
- maxvoltage
    - Domain Electric_Medium_Voltage_Maximum_Voltage set for Subtype:39,41,42
    - Domain Electric_Low_Voltage_Maximum_Voltage set for Subtype:40
- minimumpower
    - Added
    - Domain Electric_Low_Voltage_Fuse_Interrupting_Amps set for Subtype:40
    - Domain Electric_Medium_Voltage_Fuse_Continuous_Amps set for Subtype:41
- noloadloss

        - Added
        - Domain Electric_Medium_Voltage_Load_Loss set for Subtype:39
- nominalvoltage
    - Domain Electric_Medium_Voltage_Nominal_Voltage set for Subtype:39,41,42
    - Domain Electric_Low_Voltage_Nominal_Voltage set for Subtype:40
- nominalvoltagelg
    - Domain Electric_Medium_Nominal_Voltage_LG set for Subtype:39,41,42
    - Domain Electric_Low_Nominal_Voltage_LG set for Subtype:40
- normaldevicestatus
    - Domain Electric_Device_Status set for Subtype:39,40,41,42
- numberofphasesconstructed
    - Domain Electric_Distribution_Number_of_Phases set for Subtype:40,41,42
- offpeakload
    - Domain Electric_Medium_Voltage_Load_Watts set for Subtype:39
- optype
    - Added
    - Domain Electric_Transformer_Cooling set for Subtype:39
    - Domain Electric_Switch_Breaking_Medium set for Subtype:40
- ownedby
    - Domain Asset_Owner set for Subtype:39,42
- p2sphaseshift
    - Added
    - Domain Electric_Phase_Shift set for Subtype:39
- p2tphaseshift
    - Added
    - Domain Electric_Phase_Shift set for Subtype:39
- peakload
    - Domain Electric_Medium_Voltage_Load_Watts set for Subtype:39
- phasefrequency
    - Domain Electric_System_Frequency set for Subtype:39,40,41,42
- phasescurrent
    - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- phasesenergized
    - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- phasesnormal

        - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- phasesplan
    - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- phasessummer
    - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- phaseswinter
    - Domain Electric_Distribution_Phase_Attribution set for Subtype:39,40,41,42
- plandevicestatus
    - domain Electric_Device_Status set for Subtype:39,40,41,42
- powerfactor
    - Added
- primarygroundimpedance
    - Domain Electric_Impedance_Range set for Subtype:39
- primarygroundimpedance2
    - Added
    - Domain Electric_Impedance_Range set for Subtype:39
- ptratio
    - Added
    - Domain Electric_Winding_Ratio_Long set for Subtype:39
- ratedpower
    - Added
    - Domain Electric_Medium_Voltage_Transformer_VA set for Subtype:39
    - Domain Electric_Low_Voltage_Fuse_Continuous_Amps set for Subtype:40
    - Domain Electric_Medium_Voltage_Fuse_Continuous_Amps set for Subtype:41
- remotecontrolindicator
    - Domain Electric_Remoted_Controlled set for Subtype:41,42
- reversetrip
    - Added
- secondarygroundimpedance
    - Added
    - Domain Electric_Impedance_Range set for Subtype:39
- secondarygroundimpedance2
    - Added
    - Domain Electric_Impedance_Range set for Subtype:39
- secondaryvoltagelinetoground

        - Added
        - Domain Electric_Medium_Nominal_Voltage_LG set for Subtype:39
- secondaryvoltagelinetoline
    - Added
    - Domain Electric_Medium_Voltage_Nominal_Voltage set for Subtype:39
- spatialconfidence
    - Domain Spatial_Confidence set for Subtype:39,40,41,42
- spatialsource
    - Domain Spatial_Source set for Subtype:39,40,41,42
- starthour
    - Added
- stophour
    - Added
- summerstatus
    - Added
    - Domain Electric_Device_Status set for Subtype:39,40,41,42
- symbolrotation
    - Domain Symbol_Rotation set for Subtype 41,42
- tapmaxchange
    - Added
- tertiaryvoltagelinetoground
    - Added
    - Domain tertiaryvoltagelinetoground set for Subtype:39
- tertiaryvoltagelinetoline
    - Added
    - Domain Electric_Combined_Nominal_Voltage_LL set for Subtype:39
- timedelay
    - Added
    - Domain Electric_Trip_Delay_Range set for Subtype:40,41
- tripcount
    - Added
    - Domain Electric_Trip_Count set for Subtype:40,41
- tripmode
    - Added
    - Domain Electric_Trip_Type set for Subtype:40
- upperrange
    - Added
    - Domain Electric_Temperature_F set for Subtype:39
- upperrangemetric
    - Added

        - Domain Electric_Temperature_C set for Subtype:39
    - winterdevicestatus
        - Domain Electric_Device_Status set for Subtype:39,40,41,42
    - x0r0impedance
        - Domain Electric_Impedance_Range set for Subtype:39
    - x1r1impedance
        - Domain Electric_Impedance_Range set for Subtype:39
    - z0pmimpedance
        - Domain Electric_Impedance_Range set for Subtype:39
    - z0psimpedance
        - Domain Electric_Impedance_Range set for Subtype:39
    - z0xmimpedance
        - Domain Electric_Impedance_Range set for Subtype:39
    - z1psimpedance
        - Domain Electric_Impedance_Range set for Subtype:39
  - Relationship
    - ElectricDevice_ElectricDeviceUnit
        - Added Cardinality rules
  - Network Attributes
    - Added
    - nominalvoltage : E:Nominal Operating Voltage
    - ratedpower : E:Power
    - Removed
    - addpowerrating: E:Power
    - powerrating: Power Rating
- ElectricDeviceUnit
  - Fields
    - addpowerrating
        - Removed
    - alternatevoltagelinetoground
        - Removed
    - alternatevoltagelinetoline
        - Removed
    - electricdecimal1
        - Removed
    - electricdecimal2
        - Removed
    - electricdecimal3
        - Removed
    - electricdecimal4
        - Removed
    - electricdecimal5

        - Removed
- electricdecimal6
    - Removed
- equipmentconfiguration1
    - Removed
- equipmentconfiguration2
    - Removed
- equipmentconfiguration3
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- secondaryvoltagelinetoground
  - Added
  - Domain Electric_Medium_Nominal_Voltage_LG set for Subtype:39

- secondaryvoltagelinetoline
  - Added
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  - Domain Spatial_Confidence set for Subtype:39,40,41,42
- spatialsource
  - Domain Spatial_Source set for Subtype:39,40,41,42
- starthour
  - Added
- stophour
  - Added
- summerstatus
  - Added
  - Domain Electric_Device_Status set for Subtype:39,40,41,42
- symbolrotation
  - Domain Symbol_Rotation set for Subtype 41,42
- tapmaxchange
  - Added
- tertiaryvoltagelinetoground
  - Added
  - Domain tertiaryvoltagelinetoground set for Subtype:39
- tertiaryvoltagelinetoline
  - Added
  - Domain Electric_Combined_Nominal_Voltage_LL set for Subtype:39
- timedelay
  - Added
  - Domain Electric_Trip_Delay_Range set for Subtype:40,41
- tripcount
  - Added
  - Domain Electric_Trip_Count set for Subtype:40,41
- tripmode
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  - Added
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            - Domain Electric_Impedance_Range set for Subtype:39
        - z0psimpedance
            - Domain Electric_Impedance_Range set for Subtype:39
        - z0xmimpedance
            - Domain Electric_Impedance_Range set for Subtype:39
        - z1psimpedance
            - Domain Electric_Impedance_Range set for Subtype:39
- ElectricCableMount
    - Relationship
        - ElectricCableMount_StructureJunction
            - Added cardinality rules
- ElectricCrossarm
    - Fields
        - length
            - Removed
        - armlength
            - Added
- ElectricEdgeObject
    - Fields
        - phasesenergized
            - Added
        - Assigned domain Electric_Distribution_Phase_Attribution at root
- ElectricJunction
    - Fields
        - nominalvoltage
            - Network Attributes
            - Added
                - E:Nominal Operating Voltage
    - Relationsips
        - Updated
            - ElectricJunction_StructureMountDetail
                - Added Cardinality rules
- ElectricJunctionObject
    - Fields
        - phasesenergized
            - Added

        - Assigned domain Electric_Distribution_Phase_Attribution at root
- ElectricLine
    - Fields
        - nominalvoltage
            - Network Attributes
            - Added
                - E:Nominal Operating Voltage
        - ohm
            - Added
    - Relationship
        - ElectricLine_ElectricWireData
            - Added cardinality rules
- ElectricWireData
    - Fields
        - diametermetric
            - Added
        - sctempaturerating
            - Changed to sctemperaturerating
        - tempaturerating
            - Changed to temperaturerating
        - yearmanufacturered
            - Changed to yearmanufactured
- StructureBoundary
    - Fields
        - lifecyclestatus
            - Added
            - Domain Lifecycle_Status set for Subtype 101, 104, 109
        - maintby
            - Added
        - networklevel
            - Added
            - Domain Communications_Network_Levels set for Subtype: 101, 104, 109
        - spatialsource
            - Domain Spatial_Source set for subtypes 101
        - spatialconfidence
            - Domain Spatial_Confidence set for subtypes 101
- StructureEdgeObject
    - Fields
        - availablecapacity
            - Field added
            - Network Attribute

            - Assigned
                - Available Duct Capacity
- creationdate
    - Field added
- creator
    - Field added
- diametermetric
    - Field added
- ductavailable
    - Field added
    - Network Attribute
        - Assigned
            - Ducts Available
- ductdiameter
    - Field added
    - Network Attribute
        - Assigned
            - Duct Diameter
- ductid
    - Field added
- fromport
    - Field added
- insertaction
    - Field added
- inservicedate
    - Field added
- installdate
    - Field added
- lastupdate
    - Field added
- lifecyclestatus
    - Field added
- maintby
    - Field added
- maximumcapacity
    - Field added
- measuredlength
    - Field added
- measuredlengthmetric
    - Field added
    - Network Attribute
        - Assigned

                - Measured Length
            - minimumbendradius
                - Field added
                - Network Attribute
                    - Assigned
                        - Minimum Bend Radius
            - networklevel
                - Field added
            - ownedby
                - Field added
            - retireddate
                - Field added
            - spatialconfidence
                - Field added
            - spatialsource
                - Field added
            - toport
                - Field added
            - updatedby
                - Field added
        - Relationship class added
            - StructureEdgeObject__ATTACH
- StructureEdgeObject
    - Fields
        - creationdate
            - Added
        - creator
            - Added
        - diameter
            - Added
        - inservicedate
            - Added
        - installdate
            - Added
        - lastupdate
            - Added
        - lifecyclestatus
            - Added
            - Domain Lifecycle_Status set for Subtype 0,101
        - maintby
            - Added
        - networklevel

            - Added
            - Domain Communications_Network_Levels set for Subtype: 101
        - ownedby
            - Added
        - retireddate
            - Added
        - spatialconfidence
            - Added
        - spatialsource
            - Added
        - updatedby
            - Added
        - wallid
            - Added
        - diameter
            - Added
            - Domain Wire_Duct_Diameter_mm set for Subtype:101
        - diametermetric
            - Added
            - Domain Wire_Duct_Diameter_mm set for Subtype:101
    - Relationship class added
        - StructureEdgeObject__ATTACH
    - Network Attribute
        - Available Duct Capacity
            - Assigned to availablecapacity
        - Duct Available
            - Assigned to ductavailable
        - Duct Diameter
            - Assigned to ductdiameter
        - Measured Length
            - Assigned to measuredlength
        - Bend Radius
            - Assigned to minimumbendradius
- StructureJunction
    - Fields
        - material
            - Removed
        - availablecapacity
            - Added
        - depth
            - Domain Wire_Vault_Depth set for Subtype: 110

        - Domain Wire_Support_Pole_Depth set for Subtype: 123
        - Domain Structure_Pole_Depth set for Subtype:125
- depth_metric
    - Added
- designtype
    - Added
    - Domain Communications_Wireless_Tower_Type set for Subtype:111
- diameter_metric
    - Added
- dimensions
    - Domain Wire_Structure_Junction_Handhole_Size set for Subtype:103
    - Domain Wire_Structure_Junction_Junction_Box_Size set for Subtype:104
    - Domain Wire_Structure_Junction_Manhole_Size set for Subtype:105
    - Domain Wire_Structure_Junction_Vault_Size set for Subtype:110
- ductcounthigh
    - Added
- ductcountwide
    - Added
- ductusage
    - Added
- equipmentorclass
    - Domain Wire_Structure_Junction_Manhole_Type set for Subtype:105
    - Domain Wire_Structure_Junction_Manhole_Type set for Subtype:110
    - Domain Electric_Structure_Pole_Class_Low_Voltage set for Subtype:123
    - Domain Wire_Structure_Junction_Pole_Class_Combined set for Subtype:125
- foundationtype
    - Added
    - Domain Electric_Structure_Junction_Foundation set for Subtype:123
- height
    - Domain Electric_Medium_Voltage_Pole_Height set for Subtype:123
    - Domain Structure_Junction_Communications_Pole_Height set for Subtype:125
- height_metric
    - Added
- lifecyclestatus
    - Domain Lifecycle_Status set for Subtype:103, 104, 105, 110, 111, 123, 125, 130, 131, 132
- maintby

        - Domain Asset_Manager set for Subtype 103 ,104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- manufacturer
    - Added
    - Domain Wire_Structure_Manufacturer set for Subtype: 103, 104, 105, 110, 123, 125
- materialcode
    - Added
    - Domain Electric_Structure_Junction_Cabinet_Material set for Subtype:101
    - Domain Wire_Structure_Junction_Junction_Box_Material set for Subtype:104
    - Domain Wire_Structure_Junction_Vault_Cover_Material set for Subtype:105
    - Domain Wire_Structure_Junction_Pedestal_Material set for Subtype:107
    - Domain Wire_Structure_Junction_Vault_Material set for Subtype:110
    - Domain Wire_Structure_Junction_Support_Pole_Material set for Subtype:123
    - Domain Wire_Structure_Junction_Comm_Pole_Material set for Subtype:125
- networklevel
    - Added
    - Domain Communications_Network_Levels set for Subtype:102, 103, 104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- numberofwall
    - Added
- ownedby
    - Domain Asset_Owner set for Subtype:102, 103, 104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- spatialsource
    - Domain Spatial_Source set for subtypes 101, 102, 103, 104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- spatialconfidence
    - Domain Spatial_Confidence set for subtypes 101, 102, 103, 104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- symbolrotation
    - Domain Symbol_Rotation set for subtypes: 101, 102, 103, 104, 105, 107, 110, 111, 123, 125, 130, 131, 132
- treatment
    - Domain Wire_Structure_Junction_Pole_Treatment_Type set for Subtype:123, 125

        - wallid
            - Added
            - Domain Structure_Wall_Position set for Subtype:110
            - Domain Structure_Wall_Position set for Subtype:130
    - Relationships
        - StructureJunction_Crossarm
            - Added cardinality rules
    - Network Attribute
        - Assigned
            - Available Duct Capacity
- StructureJunctionObject
    - Fields
        - diameter
            - Added
        - inservicedate
            - Added
        - installdate
            - Added
        - lifecyclestatus
            - Added
            - Domain Lifecycle_Status set for Subtypes 0,130
        - maintby
            - Added
            - Domain Asset_Manager set for Subtypes 0,130,131
        - networklevel
            - Added
            - Domain Communications_Network_Levels set for Subtypes 0,130,131
        - spatialconfidence
            - Added
            - Domain Communications_Network_Levels set for Subtypes 0,130,131
        - spatialsource
            - Added
            - Domain Communications_Network_Levels set for Subtypes 0,130,131
        - wallid
            - Added
            - Domain Structure_Wall_Position set for Subtypes 0,130
- StructureLine
    - Fields
        - avialablecapacity
            - Network Attribute
                - Assigned
                    - Available Duct Capacity

- designtype
  - Added
  - Domain Communications_Conduit_Type set for Subtype:109
- diamterwidth
  - Domain Wire_Duct_Bank_Width set for Subtype:102
  - Domain Wire_Structure_Guy_Diameter_in set for Subtype:103
  - Domain Wire_Trench_Width set for Subtype:104
- diameterwidth_metric
  - Added
- lifecyclestatus
  - Domain Lifecycle_Status set for Subtype:102, 103, 104, 109, 110, 111, 112
- maintby
  - Domain Asset_Manager set for Subtype:102, 103, 104, 109, 110, 111, 112
- materialsoil
  - Domain Wire_Structure_Line_Duct_Bank_Material set for Subtype:102
  - Domain Wire_Structure_Line_Aerial_Support_Material set for Subtype:103
  - Domain Wire_Structure_Line_Trench_Material set for Subtype:104
  - Domain Wire_Structure_Line_Duct_Material set for Subtype: 109
- networklevel
  - Added
  - Domain Communications_Network_Levels set for Subtype:102, 103, 104, 109, 110, 111, 112
- searchdistance
  - Added
- spatialconfidence
  Domain Spatial_Confidence set for Subtype:102, 103, 104, 109, 110, 111, 112
- spatialsource
  Domain Spatial_Source set for Subtype:102, 103, 104, 109, 110, 111, 112

Asset Groups, Asset Types and assignments

- ElectricAssembly
  - Asset Groups
    - Medium Voltage Line Monitor and Relay Bank
      - Asset Types
        - Fault Indicator Bank
          - Changed code from 320 to 290
        - Instrument Transformer Bank

        - Changed code from 321 to 291
    - Programmable Logic Unit Bank
        - Changed code from 322 to 292
    - Remote Transmission Unit Bank
        - Changed code from 323 to 293
    - SCADA Load Monitor Bank
        - Changed code from 324 to 294
    - Relay Bank
        - Changed code from 325 to 295
- Medium Voltage Recloser Bank
    - Added with code 21
    - Asset Types
        - Overhead Recloser
            - Added with code 303
            - Categories
                - E:Load Break
                - E:Overhead
                - E:Reclosing
                - E:Switching
                - E:Protective
        - Pad Mounted Recloser
            - Added with code 307
            - Categories
                - E:Load Break
                - E:Underground
                - E:Reclosing
                - E:Switching
                - E:Protective
- Medium Voltage Sectionalizer Bank
    - Added with code 22
    - Asset Types
        - Overhead Sectionalizer
            - Added with code 304
            - Categories
                - E:Overhead
                - E:Switching
        - Pad Mounted Sectionalizer
            - Code change to 308
            - Categories
                - E:Switching
                - E:Underground

- Medium Voltage Step Transformer Bank
  - Added with code 23
  - Asset Types
    - Overhead Step Single Phase
      - Added with code 327
      - Categories
        - E:Overhead
    - Overhead Step Three Phase
      - Added with code 328
      - Categories
        - E:Overhead
    - Overhead Step Three Phase Delta
      - Added with code 329
      - Categories
        - E:Overhead
    - Overhead Step Three Phase Wye
      - Added with code 330
      - Categories
        - E:Overhead
    - Overhead Step Three Phase Open Delta
      - Added with code 331
      - Categories
        - E:Overhead
    - Overhead Step Three Phase Open Wye
      - Added with code 332
      - Categories
        - E:Overhead
    - Pad Mounted Step Single Phase
      - Code change to 337
      - Categories
        - E:Underground
    - Pad Mounted Step Three Phase
      - Code change to 338
      - Categories
        - E:Underground
    - Pad Mounted Step Three Phase Delta
      - Code change to 339
      - Categories
        - E:Underground
    - Pad Mounted Step Single Phase Wye
      - Code change to 340
      - Categories

- Added
  - E:Underground
- Medium Voltage Switch Bank
  - Asset Types
    - Overhead Recloser
      - Removed code 303
    - Overhead Sectionalizer
      - Removed code 304
    - Pad Mounted Recloser
      - Removed code 307
    - Pad Mounted Sectionalizer
      - Removed code 308
- Medium Voltage Transformer Bank
  - Asset Types
    - Overhead Step Single Phase
      - Removed code 327
    - Overhead Step Three Phase
      - Removed code 328
    - Overhead Step Three Phase Delta
      - Removed code 329
    - Overhead Step Three Phase Wye
      - Removed code 330
    - Overhead Step Three Phase Open Delta
      - Removed code 331
    - Overhead Step Three Phase Open Wye
      - Removed code 332
    - Pad Mounted Step Single Phase
      - Removed code 337
    - Pad Mounted Step Three Phase
      - Removed code 338
    - Pad Mounted Step Three Phase Delta
      - Removed code 339
    - Pad Mounted Step Three Phase Wye
      - Removed code 340

- ElectricDevice
  - Asset Groups
    - High Voltage Arrester
      - Asset Types
        - HV Indoor Arrester
          - Changed name to Indoor Arrester
        - HV Line Arrester

- Changed name to Line Arrester
- HV Station Arrester
  - Changed name to Station Arrester

- High Voltage Control Unit
  - Asset Types
    - HV Capacitor
      - Changed name to Capacitor

- High Voltage Generation
  - Asset Types
    - Battery
      - Categories
        - Added
          - E:GenerationStorage

- High Voltage Switch
  - Asset Types
    - AC Grounding
      - Added with code 189

- High Voltage Transformer
  - Asset Types
    - AC Single Phase
      - Categories
        - E:Voltage Transformer
    - AC Three Phase Power
      - Categories
        - E:Voltage Transformer
    - DC Power
      - Categories
        - E:Voltage Transformer
    - HV Grounding Transformer
      - Changed to Grounding Transformer
      - Categories
        - E:Voltage Transformer

- Low Voltage Arrrester
  - Asset Types
    - LV Overhead Arrester
      - Changed to Overhead Arrester
    - LV Underground Arrester
      - Changed to Underground Arrester
    - LV Station Arrester
      - Changed to Station Arrester
    - LV Indoor Arrester
      - Changed to Indoor Arrester

- Low Voltage Circuit Breaker

- Added with code 40
- Asset Types
  - Unknown
    - Added with code 0
  - AC Circuit Breaker
    - Added with code 471
    - Categories
      - Added
        - Subnetwork Controller
    - Terminals
      - Assigned
        - Circuit Breaker
  - DC Circuit Breaker
    - Added with code 472
    - Categories
      - Added
        - Subnetwork Controller
    - Terminals
      - Assigned
        - Circuit Breaker
- Low Voltage Generation
  - Asset Types
    - Battery
      - Categories
        - E:GenerationStorage
    - Car Charger
      - E:GenerationStorage
- Low Voltage Line Monitor and Relay
  - Asset Types
    - LV Fault Indicator
      - Renamed to Fault Indicator
    - LV Load Monitor
      - Renamed to Load Monitor
    - LV Relay
      - Renamed to Relay
    - Instrument Transformer
      - Added with code 324
- Low Voltage Motor
  - Asset Types
    - LV Single Phase Motor
      - Changed to Single Phase Motor
    - LV Three Phase Motor
      - Changed to Three Phase Motor

        - DC Motor
            - Added with code 343
- Low Voltage Power Conversion
    - Asset Types
        - LV Single Phase Inverter
            - Changed to Single Phase Inverter
        - LV Single Phase Rectifier
            - Changed to Single Phase Rectifier
        - LV Three Phase Inverter
            - Changed to Three Phase Inverter
        - LV Three Phase Rectifier
            - Changed to Three Phase Rectifier
- Low Voltage Power Factor Correcting
    - Asset Types
        - LV Mobile Harmonic Filter
            - Changed to Mobile Harmonic Filter
        - LV Mobile Reactor
            - Changed to Mobile Reactor
        - LV Overhead Capacitor
            - Changed to Overhead Capacitor
        - LV Overhead Harmonic Filter
            - Changed to Overhead Harmonic Filter
        - LV Overhead Reactor
            - Changed to Overhead Reactor
        - LV Station Capacitor
            - Changed to Station Capacitor
        - LV Station Harmonic Filter
            - Changed to Station Harmonic Filter
        - LV Station Reactor
            - Changed to Station Reactor
- Low Voltage Service
    - Asset Types
        - Single Phase Commerical
            - Categories
                - Removed
                    - E:Customer Load
                    - E:Load
        - Single Phase Residential
            - Categories
                - Removed
                    - E:Customer Load
                - Added

- E:Residential Load
- E:Load
- Three Phase Commercial
  - Categories
    - Removed
      - E:Customer Load
      - E:Load
- Three Phase Residential
  - Categories
    - Removed
      - E:Customer Load
    - Added
      - E:Residential Load
      - E:Load
- DC Commercial
  - Added with code 426
  - Categories
    - Added
      - E:Commercial
      - E:Load

- Low Voltage Switch
  - Asset Types
    - LV Overhead Jumper
      - Changed to Overhead Jumper
    - AC Station
      - Added with code 455
    - DC Station
      - Added with code 456
- Low Voltage Transformer
  - Asset Types
    - Single Phase
      - Categories
        - Added
          - E:Voltage Transformer
    - Three Phase
      - Categories
        - Added
          - E:Voltage Transformer
- Medium Voltage Arrester
  - Asset Types
    - MV Elbow Arrester
      - Changed to Elbow Arrester

        - MV Line Arrester
            - Changed to Line Arrester
        - MV Station Arrester
            - Changed to Station Arrester
- Medium Voltage Circuit Breaker
    - Asset Types
        - Two Phase Circuit Breaker
            - Removed code 504
- Medium Voltage Control Unit
    - Asset Types
        - MV Capacitor
            - Changed to Capacitor
        - MV Circuit Breaker
            - Changed to Circuit Breaker
        - MV Recloser
            - Changed to Recloser
        - MV Transfer Switch Controller
            - Changed to Transfer Switch Controller
        - MV Regulator
            - Changed to Regulator
- Medium Voltage Elbow
    - Asset Types
        - Two Phase Dead Break
            - Removed code 547
        - Two Phase Load Break
            - Removed code 548
- Medium Voltage Fuse
    - Asset Types
        - Overhead Cutout Fused Disconnect
            - Categories
                - Added
                    - E:Protective
        - ElectricDevice/Overhead Cutout Fused Load Break
            - Categories
                - Added
                    - E:Protective
- Medium Voltage Generation
    - Asset Types
        - Battery
            - Added with Asset code
            - Categories
                - Added
                    - E:Generation

- E:GenerationStorage
- Medium Voltage Line Monitor and Relay
  - Asset Types
    - MV Fault Indicator
      - Changed to Fault Indicator
    - MV Instrument Transformer
      - Changed to Instrument Transformer
    - MV Relay
      - Changed to Relay
- Medium Voltage Recloser
  - Added with code 41
  - Asset Types
    - Unknown
      - Added with code 0
    - Overhead Single Phase Recloser
      - Added with code 730
      - Categories
        - Added
          - E:Load Breaking
          - E:Protective
          - E:Switching
          - Subnetwork Controller
    - Overhead Three Phase Recloser
      - Added with code 744
      - Categories
        - Added
          - E:Load Breaking
          - E:Protective
          - E:Switching
          - Subnetwork Controller
    - Pad Mounted Single Phase Recloser
      - Added change to 747
      - Categories
        - Added
          - E:Load Breaking
          - E:Protective
          - E:Switching
          - Subnetwork Controller
    - Pad Mounted Three Phase Recloser
      - Added change to 748
      - Categories

- Added
  - E:Load Breaking
  - E:Protective
  - E:Switching
  - Subnetwork Controller

- Medium Voltage Sectionalizer
  - Added with code 42
  - Asset Types
    - Unknown
      - Added with code 0
    - Overhead Single Phase Sectionalizer
      - Added with code 731
      - Categories
        - Added
          - E:Overhead
          - E:Sectionalizing
    - Overhead Three Phase Sectionalizer
      - Added with code 745
      - Categories
        - Added
          - E:Overhead
          - E:Sectionalizing
    - Pad Mounted Single Phase Sectionalizer
      - Added change to 749
      - Categories
        - Added
          - E:Switching
          - E:Underground
    - Pad Mounted Three Phase Sectionalizer
      - Added change to 750
      - Categories
        - Added
          - E:Switching
          - E:Underground
- Medium Voltage Step Transformer
  - Added with code 39
  - Asset Types
    - Unknown
      - Added with code 0
    - Overhead Step Down Single Phase
      - Added with code 801

        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Transformer
    - Overhead Step Down Three Phase
        - Added with code 802
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Transformer
    - Overhead Step Up Single Phase
        - Added with code 803
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Step Up Transformer
    - Overhead Step Up Three Phase
        - Added with code 804
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Step Up Transformer
    - Pad Mounted Step Down Single Phase
        - Added change to 805
        - Categories
            - Added

                - E:Load Breaking
                - E:Protective
                - E:Switching
            - Termain Configuration
                - Added
                    - Transformer
    - Pad Mounted Step Down Three Phase
        - Added change to 806
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Transformer
    - Pad Mounted Step Up Single Phase
        - Added change to 807
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Step Up Transformer
    - Pad Mounted Step Up Three Phase
        - Added change to 808
        - Categories
            - Added
                - E:Load Breaking
                - E:Protective
                - E:Switching
        - Termain Configuration
            - Added
                - Step Up Transformer
    - Submersible Step Down Single Phase
        - Added change to 809
        - Categories
            - Added
                - E:Load Breaking

- E:Protective
- E:Switching
- Termain Configuration
  - Added
    - Transformer
- Submersible Step Down Three Phase
  - Added change to 810
  - Categories
    - Added
      - E:Load Breaking
      - E:Protective
      - E:Switching
  - Termain Configuration
    - Added
      - Transformer
- Submersible Step Up Single Phase
  - Added change to 811
  - Categories
    - Added
      - E:Load Breaking
      - E:Protective
      - E:Switching
  - Termain Configuration
    - Added
      - Step Up Transformer
- Submersible Step Up Three Phase
  - Added change to 812
  - Categories
    - Added
      - E:Load Breaking
      - E:Protective
      - E:Switching
  - Termain Configuration
    - Added
      - Step Up Transformer

- Medium Voltage Switch
  - Overhead Single Phase Recloser
    - Removed code 730
  - Overhead Single Phase Sectionalizer
    - Removed code 731
  - Overhead Three Phase Recloser
    - Removed code 744

        - Overhead Three Phase Sectionalizer
            - Removed code 745
        - Pad Mounted Single Phase Recloser
            - Removed code 747
        - Pad Mounted Three Phase Recloser
            - Removed code 748
        - Pad Mounted Single Phase Sectionalizer
            - Removed code 749
        - Pad Mounted Three Phase Sectionalizer
            - Removed code 750
        - Station Three Phase Disconnect
            - Added with code 766
        - Station Grounding
            - Added with code 768
    - Medium Voltage Transformer
        - Grounding Transformer
            - Categories
                - Added
                    - E:Voltage Transformer
        - Mobile Single Phase
            - Categories
                - Added
                    - E:Voltage Transformer
        - Mobile Three Phase
            - Categories
                - Added
                    - E:Voltage Transformer
        - Overhead Single Phase
            - Categories
                - Added
                    - E:Voltage Transformer
        - Overhead Step Single Phase
            - Removed code 786
        - Overhead Step Three Phase
            - Removed code 787
        - Pad Mounted Step Single Phase
            - Removed code 790
        - Pad Mounted Step Three Phase
            - Removed code 791
        - Pad Mounted Step Two Phase
            - Removed code 799

- ElectricDeviceUnit

- Aligned with changes to ElectricDevice

- Electric_Cable_Mount_Delta
  - Asset Group
    - Manhole Wall
      - Removed with code 4
    - Underground
      - Added with code 4

- ElectricJunction
  - Asset Group
    - High Voltage Attachment
      - Asset Types
        - AC Riser
          - Added with code 5
        - DC Riser
          - Added with code 6
        - AC Submersible
          - Added with code 7
        - DC Submersible
          - Added with code 8
    - High Voltage Line End
      - Asset Types
        - AC
          - Changed to AC Overhead
        - DC
          - Changed to DC Overhead
        - AC Riser
          - Removed with code 43
        - DC Riser
          - Removed with code 44
    - Low Voltage Attachment
      - Asset Types
        - Overhead
          - Removed with code 60
        - Underground
          - Removed with code 61
        - AC Underground
          - Added with code 102
        - DC Underground
          - Added with code 104
        - AC Riser

        - Added with code 105
    - DC Riser
        - Added with code 106
- Low Voltage Connection Point
    - Asset Types
        - Busbar Tap
            - Removed with code 80
        - Overhead Splice
            - Removed with code 81
        - Overhead Tap
            - Removed with code 82
        - Underground Solid Connection
            - Removed with code 83
        - Underground Splice
            - Removed with code 84
        - Overhead Solid Connection
            - Removed with code 142
        - AC Overhead Splice
            - Added with code 120
        - DC Overhead Splice
            - Added with code 121
        - AC Busbar Tap
            - Added with code 124
            - Categories
                - Added
                    - Subnetwork Tap
        - DC Busbar Tap
            - Added with code 125
            - Categories
                - Added
                    - Subnetwork Tap
        - AC Underground Splice
            - Added with code 126
        - DC Underground Splice
            - Added with code 127
        - AC Overhead Tap
            - Added with code 128
            - Categories
                - Added
                    - Subnetwork Tap
        - DC Overhead Tap
            - Added with code 129

        - Categories
            - Added
                - Subnetwork Tap
    - AC Underground Solid Connection
        - Added with code 130
    - DC Underground Solid Connection
        - Added with code 131
    - AC Overhead Solid Connection
        - Added with code 132
    - DC Overhead Solid Connection
        - Added with code 133
    - AC Underground Phase Connector
        - Added with code 134
    - DC Underground Phase Connector
        - Added with code 135
- Low Voltage Line End
    - Overhead Line End
        - Removed with code 100
    - Underground Terminator
        - Removed with code 101
    - Overhead Wire Change
        - Removed with code 102
    - Riser
        - Removed with code 103
    - AC Overhead Line End
        - Added with code 141
    - DC Overhead Line End
        - Added with code 142
        - Categories
            - Added
                - E:Overhead Dead End
    - AC Underground Terminator
        - Added with code 143
    - DC Underground Terminator
        - Added with code 144
    - AC Overhead Wire Change
        - Added with code 145
- Medium Voltage Attachment
    - Riser
        - Added with code 62
- Medium Voltage Connection Point
    - Neutral Connection

                - Changed code from 141 to 85
            - Overhead Solid Connection
                - Changed code from 142 to 86
            - Medium Voltage Connection Point
                - Underground Phase Connector
                    - Added with code 87
        - Medium Voltage Line End
            - Busbar Terminator
                - Removed with 160
            - Overhead Line End
                - Removed with code 100
            - Underground Terminator
                - Removed with code 101
            - Overhead Wire Change
                - Removed with code 102
            - Riser
                - Removed with code 103
            - Overhead Line End
                - Added with code 161
            - Underground Terminator
                - Added with code 162
            - Overhead Wire Change
                - Added with code 163

- ElectricLine
    - Asset Group
        - Ground
            - Added with code 12
            - Asset Type
                - Unknown
                    - Added with code 0
                - Bare
                    - Added with code 222
                - Shielded
                    - Added with code 221
        - Low Voltage Busbar
            - Cabinet
                - Changed to AC Cabinet
            - Station
                - Changed to AC Station
            - DC Cabinet
                - Added with code 82

        - DC Station
            - Added with code 83
    - Low Voltage Conductor
        - Overhead
            - Changed to AC Overhead
        - Submersible
            - Changed to AC Submersible
        - Underground
            - Changed to AC Underground
        - DC Overhead
            - Added with code 103
        - DC Submersible
            - Added with code 104
        - DC Underground
            - Added with code 05
    - Low Voltage Connector
        - Connector
            - Changed to AC Connector
        - DC Connector
            - Added with code 121

- Electric_Wire_Data
  - Asset Group
  - Ground
  - Added with code 12

- StructureBoundary

    - Asset Groups
        - Communications Building
            - Added with code 109
            - Asset Types
                - Building
                    - Added with code 541
        - Electric Centralized Generation
            - Asset Types
                - Battery
                    - Changed code 1 to 21
                - Biomass
                    - Changed code 2 to 22
                - Coal
                    - Changed code 3 to 23
                - Gas Turbine
                    - Changed code 4 to 24

        - Geothermal
            - Changed code 5 to 25
        - Hydro
            - Changed code 6 to 26
        - Nuclear
            - Changed code 7 to 27
        - Photovoltaic Solar
            - Changed code 8 to 28
        - Thermal Solar
            - Changed code 9 to 29
        - Wind
            - Changed code 10 to 30
- Electric Distributed Generation
  - Battery
  - Changed code 1 to 21
  - Biomass
  - Changed code 2 to 22
  - Gas Turbine
  - Changed code 4 to 24
  - Geothermal
  - Changed code 5 to 25
  - Hydro
  - Changed code 6 to 26
  - Photovoltaic Solar
  - Changed code 8 to 28
  - Thermal Solar
  - Changed code 9 to 29
  - Wind
  - Changed code 10 to 30
- Electric Vault Boundary
    - Changed to Wire Vault Boundary
    - Asset Types
        - Unknown
            - Added with code 0
        - Vault Boundary
            - Added with code 1
        - Duct Port
            - Added with code 2
        - Vault Wall
            - Added with code 3
        - Vault Floor
            - Added with code 4
        - Vault Knockout

                - Added with code 5
        - Electric Storage Facility Boundary
            - Asset Types
                - Yard
                    - Added with code 122
        - Electric Substation Boundary
            - Asset Types
                - Distribution Switching Station
                    - Added with code 85
                - Low Voltage Substation
                    - Added with code 86
        - Electric Cabinet Boundary
            - Changed to Wire Cabinet Boundary

- StructureEdgeObject
    - Asset Group
        - Unknown
            - Added with Code 0
        - Wire Duct
            - Added with code
            - Asset Types
                - Unknown
                - Duct
                    - Added with code 101
                    - Categories
                        - Cable Pathway
                        - Cable Support
                        - Ducts
                - Microduct Casing
                    - Categories
                        - Cable Support
                - Microduct
                    - Categories
                        - Cable Pathway
                        - Cable Support
                        - Ducts
                - Innerduct
                    - Categories
                        - Cable Pathway
                        - Cable Support
                        - Ducts

- StructureJunction
    - Asset Groups
        - Communications Pole
            - Added with code 125
            - Asset Types
                - Unknown
                    - Added with code 0
                - Pole
                    - Added with code 581
                    - Categories
                        - Assigned
                            - Cable Pathway
                            - Cable Support
                - Pole with Riser
                    - Added with code 582
                    - Categories
                        - Assigned
                            - Cable Pathway
                            - Cable Support
        - Communications Tower
            - Added with code 111
            - Asset Types
                - Unknown
                    - Added with code 0
                - Microwave Tower
                    - Added with code 221
                - Wireless Tower
                    - Added with code 222
                - Combined Tower
                    - Added with code 223
                - Stealth Cell Tower
                    - Added with code 224
        - Electric Guy
            - Renamed to Wire Guy
        - Electric Handhole
            - Renamed to Wire Handhole
            - Asset Type
                - Handhole
                    - Categories
                        - Assigned
                            - Cable Support

                - Duct Banks
                - Ducts
            - Association Role set to Structure
- Electric High Voltage Pole
    - Asset Types
        - Pole with Riser
            - Added with code 323
            - Categories
                - Assigned
                    - Cable Support
        - Single Pole
            - Categories
                - Assigned
                    - Cable Support
        - Single Circuit Lattice
            - Categories
                - Assigned
                    - Cable Support
        - Dual Circuit Lattice
            - Categories
                - Assigned
                    - Cable Support
        - Triple Circuit Lattice
            - Categories
                - Assigned
                    - Cable Support
        - Quadruple Circuit Lattice
            - Categories
                - Assigned
                    - Cable Support
- Electric Junction Box
    - Renamed to Wire Junction Box
    - Asset Types
        - Junction Box
            - Categories
                - Assigned
                    - Cable Support
            - Association Role set to Structure
- Electric Low Voltage Pole
    - Asset Types
        - Pole with Riser
            - Added with code 323
            - Categories

                - Assigned
                    - Cable Support
            - Riser Guard
                - Removed with code 326
            - Lattice
                - Added with code 329
                - Categories
                    - Assigned
                        - Cable Support
            - Single Pole
                - Added with code 329
                - Categories
                    - Assigned
                        - Cable Support
- Electric Manhole
    - Renamed to Wire Vault Access Point
    - Asset Types
        - Electric Manhole
            - Renamed to Wire Vault Access
        - Association Role set to Structure
- Electric Medium Voltage Pole
    - Asset Types
        - Riser Guard
            - Removed with code 325
        - Pole with Riser
            - Added with code 323
            - Categories
                - Assigned
                    - Cable Support
        - Lattice
            - Added with code 329
            - Categories
                - Assigned
                    - Cable Support
        - Single Pole
            - Added with code 329
            - Categories
                - Assigned
                    - Cable Support
- Electric Pad
    - Asset Types
        - Pad

            - Categories
                - Assigned
                    - Cable Support
- Electric Pedestal
    - Renamed to Wire Pedestal
    - Asset Types
        - Pedestal
            - Categories
                - Assigned
                    - Cable Support
- Electric Support Pole
    - Renamed to Wire Support Pole
- Electric Vault
    - Renamed to Wire Vault
    - Asset Types
        - Vault
            - Categories
                - Assigned
                    - Cable Support
                    - Duct Banks
                    - Ducts
        - Association Role set to Structure
- Marker
    - Asset Types
        - Submerged Cable
            - Added with code 464
- Structure Connection Point
    - Added with code 133
    - Asset Types
        - Conduit To Knockout Port
            - Added with code 391
- Wire Handhole
    - Asset Types
        - Handhole
            - Categories
                - Assigned
                    - Cable Support
        - Association Role set to Structure
- Wire Junction Box
    - Asset Types
        - Handhole
            - Categories
                - Assigned

- Cable Support
- Association Role set to Structure

- Wire Vault Access Point
  - Asset Types
    - Handhole
      - Categories
        - Assigned
          - Cable Support
    - Association Role set to Structure
- Wire Vault Components
  - Added with code 131
  - Asset Types
    - Cable Rack
      - Added with code 381
      - Categories
        - Assigned
          - Cable Support
- Wire Vault Knockouts
  - Added with code 130
  - Asset Types
    - Unknown
      - Added with code 0
    - Knockout
      - Added with code 371
      - Categories
        - Assigned
          - Cable Support
          - Duct Bank
          - Ducts
      - Association Role set to Structure
    - Knockout Port
      - Added with code 372
      - Categories
        - Assigned
          - Cable Support
          - Duct Bank
          - Ducts
      - Association Role set to Structure
- Wire Structure Representation
  - Added with code 132
  - Asset Types
    - Unknown

                - Added with code 0
            - Butterfly Diagram
                - Added with code 375
                - Categories
                    - Assigned
                        - Cable Support
            - Cross Section
                - Added with code 376
                - Categories
                    - Assigned
                        - Cable Support
    - Structure Attachment Point
        - Added with code 133
        - Asset Types
            - Unknown
                - Added with code 0
            - Conduit To Knockout Port
                - Added with code 391
    - Structure Attachment Point
        - Added with code 113
        - Asset Types
            - Unknown
                - Added with code 0
            - Service Entrance
                - Added with code 242
    - Electric Guy
        - Renamed to Wire Guy
    - Electric Handhole
        - Renamed to Wire Handhole
    - Electric Junction Box
        - Renamed to Wire Junction Box
    - Electric Pedestal
        - Renamed to Wire Pedestal
    - Electric Support Pole
        - Renamed to Wire Support Pole
    - Electric Vault
        - Renamed to Wire Vault
    - Electric Vault Access
        - Renamed to Wire Vault Access

- StructureJunctionObject
    - Asset Groups

        - Wire Vault Components
            - Added with code 131
            - Asset Types
                - Unknown
                    - Added with code 0
                - Cable Rack
                    - Added with code 381
                    - Categories
                        - Assigned
                            - Cable Support
        - Wire Vault Knockouts
            - Added with code 130
            - Asset Types
                - Unknown
                    - Added with code 0
                    - Categories
                        - Assigned
                            - Cable Support
                - Knockout Port
                    - Added with code 372
                    - Categories
                        - Assigned
                            - Cable Support

- StructureLine
    - Network Attributes
        - The following network attributes were added
            - Available Duct Capacity
            - Duct Diameter
            - Ducts Available
    - Asset Groups
        - Access Tunnel
            - Added with code 112
            - Asset Types
                - Tunnel
                    - Added with code 221
                    - Categories
                        - Assigned
                            - Cable Pathway

- Cable Support
- Communications Cable Hardware
  - Added with code 110
  - Asset Types
    - Unknown
      - Added with code 0
    - Cable Management Tray
      - Added with code 201
      - Categories
        - Assigned
          - Cable Support
    - Rack Cable Management
      - Added with code 202
      - Categories
        - Assigned
          - Cable Support
- Communications Conduit
  - Added with code 109
  - Asset Types
    - Unknown
      - Added with code 0
    - Conduit
      - Added with code 111
      - Categories
        - Assigned
          - Cable Support
          - Ducts
- Connector Line
  - Added with code 111
  - Asset Types
    - Unknown
      - Added with code 0
    - Vault Duct
      - Added with code 181
      - Categories
        - Assigned
          - Cable Support
          - Ducts
    - Handhole Duct
      - Added with code 182
      - Categories
        - Assigned

- Cable Support
- Electric Aerial Support
  - Renamed Wire Aerial Support
  - Asset Types
    - Aerial Span
      - Added with code 125
      - Categories
        - Assigned
          - Cable Pathway
          - Cable Support
    - Bridge Suspension
      - Categories
        - Assigned
          - Cable Support
    - Communications Support Guy
      - Added with code 126
    - Lashing Guy
      - Added with code 127
      - Categories
        - Assigned
          - Cable Support
    - Other Suspension
      - Categories
        - Assigned
          - Cable Support
    - Shield Wire
      - Categories
        - Assigned
          - Cable Support
    - Spanguy
      - Categories
        - Assigned
          - Cable Support
- Electric High Voltage Conduit
  - Asset Types
    - Conduit
      - Changed code from 121 to 111
      - Categories
        - Assigned
          - Cable Support
- Electric Low Voltage Conduit
  - Asset Types
    - Conduit

                - Changed code from 121 to 111
                - Categories
                    - Assigned
                        - Cable Support
        - Electric Medium Voltage Conduit
            - Asset Types
                - Conduit
                    - Changed code from 121 to 111
                    - Categories
                        - Assigned
                            - Cable Support
        - Electric Duct Bank
            - Renamed Wire Duct Bank
            - Asset Types
                - Duct Bank
                    - Categories
                        - Assigned
                            - Cable Support
                            - Duct Bank
        - Electric Trench
            - Renamed Wire Trench
            - Asset Types
                - Trench
                    - Categories
                        - Assigned
                            - Cable Support
        - Electric Duct
            - Removed

Tiers and Subnetworks

- Distribution Mesh
    - Devices
        - Added
            - Low Voltage Arrester,Indoor Arrester
            - Low Voltage Arrester,Overhead Arrester
            - Low Voltage Arrester,Station Arrester
            - Low Voltage Arrester,Underground Arrester
            - Low Voltage Line Monitor and Relay,Fault Indicator
            - Low Voltage Line Monitor and Relay,Instrument Transformer
            - Low Voltage Line Monitor and Relay,Load Monitor

- Low Voltage Line Monitor and Relay,Relay
- Low Voltage Motor,DC Motor
- Low Voltage Motor,Single Phase Motor
- Low Voltage Motor,Three Phase Motor
- Low Voltage Power Conversion,Single Phase Inverter
- Low Voltage Power Conversion,Single Phase Rectifier
- Low Voltage Power Conversion,Three Phase Inverter
- Low Voltage Power Conversion,Three Phase Rectifier
- Low Voltage Power Factor Correcting,Mobile Harmonic Filter
- Low Voltage Power Factor Correcting,Mobile Reactor
- Low Voltage Power Factor Correcting,Overhead Capacitor
- Low Voltage Power Factor Correcting,Overhead Harmonic Filter
- Low Voltage Power Factor Correcting,Overhead Reactor
- Low Voltage Power Factor Correcting,Station Capacitor
- Low Voltage Power Factor Correcting,Station Harmonic Filter
- Low Voltage Power Factor Correcting,Station Reactor
- Low Voltage Service,DC Commercial
- Low Voltage Switch,AC Station
- Low Voltage Switch,DC Station
- Low Voltage Switch,Overhead Jumper
- Medium Voltage Recloser,Overhead Single Phase Recloser
- Medium Voltage Recloser,Overhead Three Phase Recloser
- Medium Voltage Recloser,Pad Mounted Single Phase Recloser
- Medium Voltage Recloser,Pad Mounted Three Phase Recloser
- Medium Voltage Sectionalizer,Overhead Single Phase Sectionalizer
- Medium Voltage Sectionalizer,Overhead Three Phase Sectionalizer
- Medium Voltage Sectionalizer,Pad Mounted Single Phase Sectionalizer
- Medium Voltage Sectionalizer,Pad Mounted Three Phase Sectionalizer
- Medium Voltage Step Transformer,Overhead Step Down Single Phase,False
- Medium Voltage Step Transformer,Overhead Step Down Three Phase
- Medium Voltage Step Transformer,Overhead Step Up Single Phase
- Medium Voltage Step Transformer,Overhead Step Up Three Phase
- Medium Voltage Step Transformer,Pad Mounted Step Down Single Phase
- Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase

        - Medium Voltage Step Transformer,Pad Mounted Step Up Single Phase
        - Medium Voltage Step Transformer,Pad Mounted Step Up Three Phase
        - Medium Voltage Switch,Station Grounding
        - Medium Voltage Switch,Station Three Phase Disconnect
        - Medium Voltage Transformer,Network
        - Medium Voltage Transformer,Overhead Three Phase
        - Medium Voltage Transformer,Pad Mounted Three Phase
        - Medium Voltage Transformer,Subsurface Three Phase
- Removed
    - Low Voltage Arrester,LV Indoor Arrester
    - Low Voltage Arrester,LV Overhead Arrester
    - Low Voltage Arrester,LV Station Arrester
    - Low Voltage Arrester,LV Underground Arrester
    - Low Voltage Line Monitor and Relay,LV Fault Indicator
    - Low Voltage Line Monitor and Relay,LV Load Monitor
    - Low Voltage Line Monitor and Relay,LV Relay
    - Low Voltage Motor,LV Three Phase Motor
    - Low Voltage Power Conversion,LV Single Phase Inverter,False
    - Low Voltage Power Conversion,LV Single Phase Rectifier
    - Low Voltage Power Conversion,LV Three Phase Inverter
    - Low Voltage Power Conversion,LV Three Phase Rectifier
    - Low Voltage Power Factor Correcting,LV Mobile Harmonic Filter
    - Low Voltage Power Factor Correcting,LV Mobile Reactor
    - Low Voltage Power Factor Correcting,LV Overhead Capacitor
    - Low Voltage Power Factor Correcting,LV Overhead Harmonic Filter
    - Low Voltage Power Factor Correcting,LV Overhead Reactor
    - Low Voltage Switch,LV Overhead Jumper
    - Medium Voltage Elbow,Two Phase Dead Break
    - Medium Voltage Elbow,Two Phase Load Break
    - Medium Voltage Switch,Overhead Single Phase Recloser
    - Medium Voltage Switch,Overhead Single Phase Sectionalizer
    - Medium Voltage Switch,Overhead Three Phase Recloser
    - Medium Voltage Switch,Overhead Three Phase Sectionalizer
    - Medium Voltage Switch,Pad Mounted Single Phase Recloser
    - Medium Voltage Switch,Pad Mounted Single Phase Sectionalizer
    - Medium Voltage Switch,Pad Mounted Three Phase Recloser

        - Medium Voltage Switch,Pad Mounted Three Phase Sectionalizer
        - Medium Voltage Switch,Two Phase Recloser
        - Medium Voltage Switch,Two Phase Sectionalizer
        - Medium Voltage Transformer,Overhead Step Single Phase,False
        - Medium Voltage Transformer,Overhead Step Three Phase
        - Medium Voltage Transformer,Overhead Three Phase
        - Medium Voltage Transformer,Pad Mounted Step Single Phase,False
        - Medium Voltage Transformer,Pad Mounted Step Three Phase
        - Medium Voltage Transformer,Pad Mounted Three Phase
- Junctions
    - Removed
        - High Voltage Connection Point,AC Busbar Tap
        - High Voltage Connection Point,AC Overhead Splice
        - High Voltage Connection Point,AC Tap
        - High Voltage Connection Point,DC Busbar Tap
        - High Voltage Connection Point,DC Overhead Splice
        - High Voltage Connection Point,DC Tap
        - High Voltage Connection Point,Unknown
        - High Voltage Line End,AC
        - High Voltage Line End,AC Busbar Terminator
        - High Voltage Line End,AC Riser
        - High Voltage Line End,DC
        - High Voltage Line End,DC Busbar Terminator
        - High Voltage Line End,DC Riser
        - High Voltage Line End,Unknown
        - Low Voltage Attachment,Overhead
        - Low Voltage Attachment,Underground
        - Low Voltage Attachment,Unknown
        - Low Voltage Connection Point,Busbar Tap
        - Low Voltage Connection Point,Overhead Solid Connection
        - Low Voltage Connection Point,Overhead Splice
        - Low Voltage Connection Point,Overhead Tap
        - Low Voltage Connection Point,Underground Solid Connection
        - Low Voltage Connection Point,Underground Splice
        - Low Voltage Connection Point,Unknown
        - Low Voltage Line End,Overhead Line End
        - Low Voltage Line End,Overhead Wire Change
        - Low Voltage Line End,Riser

        - Low Voltage Line End,Underground Terminator
        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground
        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Attachment,AC Submersible
    - High Voltage Attachment,DC Submersible
    - High Voltage Connection Point,AC Busbar Tap
    - High Voltage Connection Point,AC Overhead Splice
    - High Voltage Connection Point,AC Tap
    - High Voltage Connection Point,DC Busbar Tap
    - High Voltage Connection Point,DC Overhead Splice
    - High Voltage Connection Point,DC Tap
    - High Voltage Line End,AC Busbar Terminator
    - High Voltage Line End,DC Busbar Terminator
    - High Voltage Line End,DC Overhead
    - Low Voltage Attachment,AC Overhead
    - Low Voltage Attachment,AC Riser
    - Low Voltage Attachment,AC Underground
    - Low Voltage Attachment,DC Overhead
    - Low Voltage Attachment,DC Riser
    - Low Voltage Attachment,DC Underground

        - Low Voltage Connection Point,AC Busbar Tap
        - Low Voltage Connection Point,AC Overhead Solid Connection
        - Low Voltage Connection Point,AC Overhead Splice
        - Low Voltage Connection Point,AC Overhead Tap
        - Low Voltage Connection Point,AC Underground Solid Connection
        - Low Voltage Connection Point,AC Underground Splice
        - Low Voltage Connection Point,DC Busbar Tap
        - Low Voltage Connection Point,DC Overhead Solid Connection
        - Low Voltage Connection Point,DC Overhead Tap
        - Low Voltage Connection Point,DC Underground Solid Connection
        - Low Voltage Connection Point,DC Underground Splice
        - Low Voltage Line End,AC Overhead Line End
        - Low Voltage Line End,AC Overhead Wire Change
        - Low Voltage Line End,AC Underground Terminator
        - Low Voltage Line End,DC Overhead Line End
        - Low Voltage Line End,DC Underground Terminator
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Riser
        - Medium Voltage Attachment,Underground
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
- Lines
    - Removed
        - Low Voltage Busbar,Cabinet
        - Low Voltage Busbar,Station
        - Low Voltage Conductor,Overhead
        - Low Voltage Conductor,Submersible
        - Low Voltage Conductor,Underground

                - Low Voltage Connector,Connector
            - Added
                - Ground,Bare
                - Ground,Shielded
                - Low Voltage Busbar,AC Cabinet
                - Low Voltage Busbar,AC Station
                - Low Voltage Busbar,DC Cabinet
                - Low Voltage Busbar,DC Station
                - Low Voltage Conductor,AC Overhead
                - Low Voltage Conductor,AC Submersible
                - Low Voltage Conductor,AC Underground
                - Low Voltage Conductor,DC Overhead
                - Low Voltage Conductor,DC Submersible
                - Low Voltage Conductor,DC Underground
                - Low Voltage Connector,AC Connector
                - Low Voltage Connector,DC Connector
        - Controllers
            - Removed
                - Medium Voltage Transformer,Subsurface Three Phase
            - Added
                - Medium Voltage Step Transformer,Overhead Step Down Three Phase
                - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
    - Conditional Barriers
        - Changed
            - E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
- Distribution Substation
    - Devices
        - Removed
            - Medium Voltage Arrester,MV Elbow Arrester
            - Medium Voltage Arrester,MV Line Arrester
            - Medium Voltage Arrester,MV Station Arrester
            - Medium Voltage Circuit Breaker,Two Phase Circuit Breaker
            - Medium Voltage Control Unit,MV Capacitor
            - Medium Voltage Control Unit,MV Circuit Breaker
            - Medium Voltage Control Unit,MV Recloser
            - Medium Voltage Control Unit,MV Regulator
            - Medium Voltage Control Unit,MV Transfer Switch Controller

            - Medium Voltage Line Monitor and Relay,MV Fault Indicator
            - Medium Voltage Line Monitor and Relay,MV Instrument Transformer
            - Medium Voltage Line Monitor and Relay,MV Relay
            - Medium Voltage Switch,Overhead Single Phase Recloser
            - Medium Voltage Switch,Overhead Three Phase Recloser
            - Medium Voltage Switch,Pad Mounted Single Phase Recloser
            - Medium Voltage Switch,Pad Mounted Three Phase Recloser
            - Medium Voltage Transformer,Network
            - Medium Voltage Transformer,Overhead Step Single Phase
            - Medium Voltage Transformer,Overhead Step Three Phase
            - Medium Voltage Transformer,Pad Mounted Step Single Phase
            - Medium Voltage Transformer,Pad Mounted Step Three Phase
        - Added
            - Medium Voltage Arrester,Elbow Arrester
            - Medium Voltage Arrester,Line Arrester
            - Medium Voltage Arrester,Station Arrester
            - Medium Voltage Control Unit,Capacitor,False
            - Medium Voltage Control Unit,Circuit Breaker
            - Medium Voltage Control Unit,Recloser
            - Medium Voltage Control Unit,Regulator
            - Medium Voltage Control Unit,Transfer Switch Controller
            - Medium Voltage Line Monitor and Relay,Fault Indicator
            - Medium Voltage Line Monitor and Relay,Instrument Transformer
            - Medium Voltage Line Monitor and Relay,Relay
            - Medium Voltage Recloser,Overhead Single Phase Recloser,False
            - Medium Voltage Recloser,Overhead Three Phase Recloser
            - Medium Voltage Recloser,Pad Mounted Single Phase Recloser
            - Medium Voltage Recloser,Pad Mounted Three Phase Recloser
            - Medium Voltage Step Transformer,Overhead Step Down Single Phase,False
            - Medium Voltage Step Transformer,Overhead Step Down Three Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Down Single Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
            - Medium Voltage Transformer,Network
    - Junctions
        - Removed
            - High Voltage Line End,AC

- High Voltage Line End,AC Busbar Terminator
- High Voltage Line End,AC Riser
- High Voltage Line End,DC
- High Voltage Line End,DC Busbar Terminator
- High Voltage Line End,DC Riser
- High Voltage Line End,Unknown
- High Voltage Connection Point,Unknown
- Low Voltage Attachment,Overhead
- Low Voltage Attachment,Underground
- Low Voltage Attachment,Unknown
- Low Voltage Connection Point,Busbar Tap
- Low Voltage Connection Point,Overhead Solid Connection
- Low Voltage Connection Point,Overhead Splice
- Low Voltage Connection Point,Overhead Tap
- Low Voltage Connection Point,Underground Solid Connection
- Low Voltage Connection Point,Underground Splice
- Low Voltage Connection Point,Unknown
- Low Voltage Line End,Overhead Line End
- Low Voltage Line End,Overhead Wire Change
- Low Voltage Line End,Riser
- Low Voltage Line End,Underground Terminator
- Low Voltage Line End,Unknown
- Medium Voltage Attachment,Overhead
- Medium Voltage Attachment,Underground
- Medium Voltage Attachment,Unknown
- Medium Voltage Connection Point,Busbar Tap
- Medium Voltage Connection Point,Neutral Connection
- Medium Voltage Connection Point,Overhead Solid Connection
- Medium Voltage Connection Point,Overhead Splice
- Medium Voltage Connection Point,Overhead Tap
- Medium Voltage Connection Point,Underground Solid Connection
- Medium Voltage Connection Point,Underground Splice
- Medium Voltage Connection Point,Unknown
- Medium Voltage Line End,Busbar Terminator
- Medium Voltage Line End,Overhead Line End
- Medium Voltage Line End,Overhead Wire Change
- Medium Voltage Line End,Riser
- Medium Voltage Line End,Underground Terminator

        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Line End,AC Busbar Terminator,13
    - High Voltage Line End,DC Busbar Terminator
    - High Voltage Line End,Unknown
    - Low Voltage Attachment,AC Overhead
    - Low Voltage Attachment,AC Underground
    - Low Voltage Attachment,Unknown
    - Low Voltage Connection Point,AC Busbar Tap
    - Low Voltage Connection Point,AC Overhead Solid Connection
    - Low Voltage Connection Point,AC Overhead Splice
    - Low Voltage Connection Point,AC Overhead Tap
    - Low Voltage Connection Point,AC Underground Solid Connection
    - Low Voltage Connection Point,AC Underground Splice
    - Low Voltage Connection Point,Unknown
    - Low Voltage Line End,AC Overhead Line End
    - Low Voltage Line End,AC Overhead Wire Change
    - Low Voltage Line End,AC Underground Terminator
    - Low Voltage Line End,Unknown
    - Medium Voltage Attachment,Overhead
    - Medium Voltage Attachment,Riser
    - Medium Voltage Attachment,Underground
    - Medium Voltage Attachment,Unknown
    - Medium Voltage Connection Point,Busbar Tap
    - Medium Voltage Connection Point,Neutral Connection
    - Medium Voltage Connection Point,Overhead Solid Connection
    - Medium Voltage Connection Point,Overhead Splice
    - Medium Voltage Connection Point,Overhead Tap
    - Medium Voltage Connection Point,Underground Solid Connection
    - Medium Voltage Connection Point,Underground Splice
    - Medium Voltage Connection Point,Unknown
    - Medium Voltage Line End,Busbar Terminator
    - Medium Voltage Line End,Overhead Line End
    - Medium Voltage Line End,Overhead Wire Change
    - Medium Voltage Line End,Underground Terminator
    - Medium Voltage Line End,Underground Wire Change
    - Medium Voltage Line End,Unknown

    - Lines
        - Added
            - Ground,Bare
            - Ground,Shielded
    - Controllers
        - Removed
            - Medium Voltage Circuit Breaker,Two Phase Circuit Breaker
            - Medium Voltage Transformer,Network
            - Medium Voltage Transformer,Pad Mounted Step Three Phase
        - Added
            - Medium Voltage Step Transformer,Overhead Step Down Three Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
- Electric Distribution
    - Devices
        - Removed
        - Low Voltage Arrester,LV Indoor Arrester
            - Low Voltage Arrester,LV Overhead Arrester
            - Low Voltage Arrester,LV Station Arrester
            - Low Voltage Arrester,LV Underground Arrester
            - Low Voltage Line Monitor and Relay,LV Fault Indicator,False
            - Low Voltage Line Monitor and Relay,LV Load Monitor
            - Low Voltage Line Monitor and Relay,LV Relay
            - Low Voltage Motor,LV Single Phase Motor
            - Low Voltage Motor,LV Three Phase Motor
            - Low Voltage Power Conversion,LV Single Phase Inverter,False
            - Low Voltage Power Conversion,LV Single Phase Rectifier
            - Low Voltage Power Conversion,LV Three Phase Inverter
            - Low Voltage Power Conversion,LV Three Phase Rectifier
            - Low Voltage Power Factor Correcting,LV Mobile Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Mobile Reactor
            - Low Voltage Power Factor Correcting,LV Overhead Capacitor
            - Low Voltage Power Factor Correcting,LV Overhead Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Overhead Reactor

        - Low Voltage Power Factor Correcting,LV Station Capacitor
        - Low Voltage Power Factor Correcting,LV Station Harmonic Filter
        - Low Voltage Power Factor Correcting,LV Station Reactor
        - Low Voltage Switch,LV Overhead Jumper
        - Medium Voltage Arrester,MV Elbow Arrester
        - Medium Voltage Arrester,MV Line Arrester
        - Medium Voltage Circuit Breaker,Two Phase Circuit Breaker,True
        - Medium Voltage Control Unit,MV Capacitor
        - Medium Voltage Control Unit,MV Circuit Breaker
        - Medium Voltage Control Unit,MV Recloser
        - Medium Voltage Control Unit,MV Regulator
        - Medium Voltage Control Unit,MV Transfer Switch Controller
        - Medium Voltage Elbow,Two Phase Load Break
        - Medium Voltage Line Monitor and Relay,MV Fault Indicator
        - Medium Voltage Line Monitor and Relay,MV Instrument Transformer
        - Medium Voltage Switch,Overhead Single Phase Recloser
        - Medium Voltage Switch,Overhead Single Phase Sectionalizer
        - Medium Voltage Switch,Overhead Three Phase Recloser
        - Medium Voltage Switch,Overhead Three Phase Sectionalizer
        - Medium Voltage Switch,Pad Mounted Single Phase Recloser,False
        - Medium Voltage Switch,Pad Mounted Single Phase Sectionalizer
        - Medium Voltage Switch,Pad Mounted Three Phase Recloser
        - Medium Voltage Switch,Pad Mounted Three Phase Sectionalizer
        - Medium Voltage Switch,Two Phase Switch
        - Medium Voltage Transformer,Network
        - Medium Voltage Transformer,Overhead Step Single Phase
        - Medium Voltage Transformer,Overhead Step Three Phase
        - Medium Voltage Transformer,Pad Mounted Step Single Phase
        - Medium Voltage Transformer,Pad Mounted Step Three Phase
        - Medium Voltage Transformer,Pad Mounted Step Two Phase
- Added
    - Low Voltage Arrester,Indoor Arrester
    - Low Voltage Arrester,Overhead Arrester
    - Low Voltage Arrester,Station Arrester
    - Low Voltage Arrester,Underground Arrester
    - Low Voltage Line Monitor and Relay,Fault Indicator
    - Low Voltage Line Monitor and Relay,Instrument Transformer
    - Low Voltage Line Monitor and Relay,Load Monitor

- Low Voltage Line Monitor and Relay,Relay
- Low Voltage Motor,DC Motor
- Low Voltage Motor,Single Phase Motor
- Low Voltage Motor,Three Phase Motor
- Low Voltage Power Conversion,Single Phase Inverter,False
- Low Voltage Power Conversion,Single Phase Rectifier
- Low Voltage Power Conversion,Three Phase Inverter
- Low Voltage Power Conversion,Three Phase Rectifier
- Low Voltage Power Factor Correcting,Mobile Harmonic Filter
- Low Voltage Power Factor Correcting,Mobile Reactor
- Low Voltage Power Factor Correcting,Overhead Capacitor
- Low Voltage Power Factor Correcting,Overhead Harmonic Filter
- Low Voltage Power Factor Correcting,Overhead Reactor
- Low Voltage Power Factor Correcting,Station Capacitor
- Low Voltage Power Factor Correcting,Station Harmonic Filter
- Low Voltage Power Factor Correcting,Station Reactor
- Low Voltage Service,DC Commercial
- Low Voltage Switch,AC Station
- Low Voltage Switch,DC Station
- Low Voltage Switch,Overhead Jumper
- Medium Voltage Arrester,Elbow Arrester
- Medium Voltage Arrester,Line Arrester
- Medium Voltage Control Unit,Capacitor
- Medium Voltage Control Unit,Circuit Breaker
- Medium Voltage Control Unit,Recloser
- Medium Voltage Control Unit,Regulator
- Medium Voltage Control Unit,Transfer Switch Controller
- Medium Voltage Line Monitor and Relay,Fault Indicator
- Medium Voltage Line Monitor and Relay,Instrument Transformer
- Medium Voltage Recloser,Overhead Single Phase Recloser
- Medium Voltage Recloser,Overhead Three Phase Recloser
- Medium Voltage Recloser,Pad Mounted Single Phase Recloser
- Medium Voltage Recloser,Pad Mounted Three Phase Recloser
- Medium Voltage Sectionalizer,Overhead Single Phase Sectionalizer
- Medium Voltage Sectionalizer,Overhead Three Phase Sectionalizer
- Medium Voltage Sectionalizer,Pad Mounted Single Phase Sectionalizer

            - Medium Voltage Sectionalizer,Pad Mounted Three Phase Sectionalizer
            - Medium Voltage Step Transformer,Overhead Step Down Single Phase
            - Medium Voltage Step Transformer,Overhead Step Down Three Phase
            - Medium Voltage Step Transformer,Overhead Step Up Single Phase
            - Medium Voltage Step Transformer,Overhead Step Up Three Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Down Single Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Up Single Phase
            - Medium Voltage Step Transformer,Pad Mounted Step Up Three Phase
            - Medium Voltage Switch,Station Grounding
            - Medium Voltage Switch,Station Three Phase Disconnect
            - Medium Voltage Transformer,Network
    - Junctions
        - Removed
            - High Voltage Connection Point,AC Busbar Tap
            - High Voltage Connection Point,AC Overhead Splice
            - High Voltage Connection Point,AC Tap
            - High Voltage Connection Point,DC Busbar Tap
            - High Voltage Connection Point,DC Overhead Splice
            - High Voltage Connection Point,DC Tap
            - High Voltage Connection Point,Unknown
            - High Voltage Line End,AC
            - High Voltage Line End,AC Busbar Terminator
            - High Voltage Line End,AC Riser
            - High Voltage Line End,DC
            - High Voltage Line End,DC Busbar Terminator
            - High Voltage Line End,DC Riser
            - High Voltage Line End,Unknown
            - Low Voltage Attachment,Overhead
            - Low Voltage Attachment,Underground
            - Low Voltage Attachment,Unknown
            - Low Voltage Connection Point,Busbar Tap
            - Low Voltage Connection Point,Overhead Solid Connection
            - Low Voltage Connection Point,Overhead Splice

        - Low Voltage Connection Point,Overhead Tap
        - Low Voltage Connection Point,Underground Solid Connection
        - Low Voltage Connection Point,Underground Splice
        - Low Voltage Connection Point,Unknown
        - Low Voltage Line End,Overhead Line End
        - Low Voltage Line End,Overhead Wire Change
        - Low Voltage Line End,Riser
        - Low Voltage Line End,Underground Terminator
        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground
        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Attachment,AC Submersible
    - High Voltage Attachment,DC Submersible
    - High Voltage Connection Point,AC Busbar Tap
    - High Voltage Connection Point,AC Overhead Splice
    - High Voltage Connection Point,AC Tap
    - High Voltage Connection Point,DC Busbar Tap
    - High Voltage Connection Point,DC Overhead Splice
    - High Voltage Connection Point,DC Tap
    - High Voltage Connection Point,Unknown
    - High Voltage Line End,AC Busbar Terminator

- High Voltage Line End,AC Overhead
- High Voltage Line End,DC Busbar Terminator
- High Voltage Line End,Unknown
- Low Voltage Attachment,AC Overhead
- Low Voltage Attachment,AC Riser
- Low Voltage Attachment,AC Underground
- Low Voltage Attachment,DC Overhead
- Low Voltage Attachment,DC Riser
- Low Voltage Attachment,DC Underground
- Low Voltage Attachment,Unknown
- Low Voltage Connection Point,AC Busbar Tap
- Low Voltage Connection Point,AC Overhead Solid Connection
- Low Voltage Connection Point,AC Overhead Splice
- Low Voltage Connection Point,AC Overhead Tap
- Low Voltage Connection Point,AC Underground Solid Connection
- Low Voltage Connection Point,AC Underground Splice
- Low Voltage Connection Point,DC Busbar Tap
- Low Voltage Connection Point,DC Overhead Solid Connection
- Low Voltage Connection Point,DC Overhead Tap
- Low Voltage Connection Point,DC Underground Solid Connection
- Low Voltage Connection Point,DC Underground Splice
- Low Voltage Connection Point,Unknown
- Low Voltage Line End,AC Overhead Line End
- Low Voltage Line End,AC Overhead Wire Change
- Low Voltage Line End,AC Underground Terminator
- Low Voltage Line End,DC Overhead Line End
- Low Voltage Line End,DC Underground Terminator
- Low Voltage Line End,Unknown
- Medium Voltage Attachment,Overhead
- Medium Voltage Attachment,Riser
- Medium Voltage Attachment,Underground
- Medium Voltage Attachment,Unknown
- Medium Voltage Connection Point,Busbar Tap
- Medium Voltage Connection Point,Neutral Connection
- Medium Voltage Connection Point,Overhead Solid Connection
- Medium Voltage Connection Point,Overhead Splice
- Medium Voltage Connection Point,Overhead Tap
- Medium Voltage Connection Point,Underground Solid Connection

        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Lines
    - Removed
        - Low Voltage Busbar,Cabinet,False
        - Low Voltage Busbar,Station
        - Low Voltage Conductor,Overhead
        - Low Voltage Conductor,Submersible
        - Low Voltage Conductor,Underground
        - Low Voltage Connector,Connector
    - Added
        - Ground,Bare,False
        - Ground,Shielded
        - Low Voltage Busbar,AC Cabinet
        - Low Voltage Busbar,AC Station
        - Low Voltage Busbar,DC Cabinet
        - Low Voltage Busbar,DC Station
        - Low Voltage Conductor,AC Overhead
        - Low Voltage Conductor,AC Submersible
        - Low Voltage Conductor,AC Underground
        - Low Voltage Conductor,DC Overhead
        - Low Voltage Conductor,DC Submersible
        - Low Voltage Conductor,DC Underground
        - Low Voltage Connector,AC Connector
        - Low Voltage Connector,DC Connector
- Controllers
    - Removed
        - Medium Voltage Transformer,Network
        - Medium Voltage Transformer,Overhead Step Three Phase
        - Medium Voltage Transformer,Pad Mounted Step Three Phase
    - Added
        - Medium Voltage Step Transformer,Overhead Step Down Three Phase

            - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
    - Function Summaries
        - Removed
            - ADD,Shape length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:Medium to Low Voltage Cable
        - Added
            - ADD,Measured Length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:Medium to Low Voltage Cable
- Electric Generation Station
    - Devices
        - Removed
            - Medium Voltage Arrester,MV Station Arrester
            - Medium Voltage Control Unit,MV Circuit Breaker
            - Medium Voltage Line Monitor and Relay,MV Instrument Transformer
            - Medium Voltage Line Monitor and Relay,MV Relay
            - Medium Voltage Switch,Pad Mounted Single Phase Sectionalizer
            - Medium Voltage Switch,Pad Mounted Three Phase Sectionalizer
        - Added
            - Medium Voltage Arrester,Station Arrester
            - Medium Voltage Control Unit,Circuit Breaker
            - Medium Voltage Line Monitor and Relay,Instrument Transformer
            - Medium Voltage Line Monitor and Relay,Relay
            - Medium Voltage Sectionalizer,Pad Mounted Single Phase Sectionalizer
            - Medium Voltage Sectionalizer,Pad Mounted Three Phase Sectionalizer
    - Junctions
        - Removed
            - High Voltage Line End,AC
            - High Voltage Line End,AC Busbar Terminator
            - High Voltage Line End,AC Riser
            - High Voltage Line End,DC
            - High Voltage Line End,DC Busbar Terminator

        - High Voltage Line End,DC Riser
        - Low Voltage Attachment,Overhead,20
        - Low Voltage Attachment,Underground
        - Low Voltage Attachment,Unknown
        - Low Voltage Connection Point,Busbar Tap
        - Low Voltage Connection Point,Overhead Solid Connection
        - Low Voltage Connection Point,Overhead Splice
        - Low Voltage Connection Point,Overhead Tap
        - Low Voltage Connection Point,Underground Solid Connection
        - Low Voltage Connection Point,Underground Splice
        - Low Voltage Connection Point,Unknown
        - Low Voltage Line End,Overhead Line End
        - Low Voltage Line End,Overhead Wire Change
        - Low Voltage Line End,Riser
        - Low Voltage Line End,Underground Terminator
        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground
        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
    - Added
        - High Voltage Line End,AC Busbar Terminator
        - High Voltage Line End,DC Busbar Terminator
        - Low Voltage Attachment,AC Overhead,33

            - Low Voltage Attachment,AC Underground
            - Low Voltage Attachment,Unknown
            - Low Voltage Connection Point,AC Busbar Tap
            - Low Voltage Connection Point,AC Overhead Solid Connection
            - Low Voltage Connection Point,AC Overhead Splice
            - Low Voltage Connection Point,AC Overhead Tap
            - Low Voltage Connection Point,AC Underground Solid Connection
            - Low Voltage Connection Point,AC Underground Splice
            - Low Voltage Connection Point,Unknown
            - Low Voltage Line End,AC Overhead Line End
            - Low Voltage Line End,AC Overhead Wire Change
            - Low Voltage Line End,AC Underground Terminator
            - Low Voltage Line End,Unknown
            - Medium Voltage Attachment,Overhead
            - Medium Voltage Attachment,Underground
            - Medium Voltage Attachment,Unknown
            - Medium Voltage Connection Point,Busbar Tap
            - Medium Voltage Connection Point,Neutral Connection
            - Medium Voltage Connection Point,Overhead Solid Connection
            - Medium Voltage Connection Point,Overhead Splice
            - Medium Voltage Connection Point,Overhead Tap
            - Medium Voltage Connection Point,Underground Solid Connection
            - Medium Voltage Connection Point,Underground Splice
            - Medium Voltage Connection Point,Unknown
            - Medium Voltage Line End,Busbar Terminator
            - Medium Voltage Line End,Overhead Line End
            - Medium Voltage Line End,Overhead Wire Change
            - Medium Voltage Line End,Underground Terminator
            - Medium Voltage Line End,Underground Wire Change
            - Medium Voltage Line End,Unknown
    - Lines
        - Added
            - Ground,Bare
            - Ground,Shielded
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR

            - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR

- Secondary Mesh
    - Devices
        - Removed
            - Low Voltage Arrester,LV Indoor Arrester
            - Low Voltage Arrester,LV Overhead Arrester
            - Low Voltage Arrester,LV Station Arrester
            - Low Voltage Arrester,LV Underground Arrester
            - Low Voltage Line Monitor and Relay,LV Fault Indicator
            - Low Voltage Line Monitor and Relay,LV Load Monitor
            - Low Voltage Line Monitor and Relay,LV Relay
            - Low Voltage Motor,LV Single Phase Motor
            - Low Voltage Motor,LV Three Phase Motor
            - Low Voltage Power Conversion,LV Single Phase Inverter
            - Low Voltage Power Conversion,LV Single Phase Rectifier
            - Low Voltage Power Conversion,LV Three Phase Inverter
            - Low Voltage Power Conversion,LV Three Phase Rectifier
            - Low Voltage Power Factor Correcting,LV Mobile Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Mobile Reactor
            - Low Voltage Power Factor Correcting,LV Overhead Capacitor
            - Low Voltage Power Factor Correcting,LV Overhead Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Overhead Reactor
            - Low Voltage Power Factor Correcting,LV Station Capacitor
            - Low Voltage Power Factor Correcting,LV Station Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Station Reactor
        - Added
            - Low Voltage Arrester,Indoor Arrester
            - Low Voltage Arrester,Overhead Arrester
            - Low Voltage Arrester,Station Arrester
            - Low Voltage Arrester,Underground Arrester
            - Low Voltage Line Monitor and Relay,Fault Indicator
            - Low Voltage Line Monitor and Relay,Instrument Transformer
            - Low Voltage Line Monitor and Relay,Load Monitor
            - Low Voltage Line Monitor and Relay,Relay
            - Low Voltage Motor,DC Motor
            - Low Voltage Motor,Single Phase Motor
            - Low Voltage Motor,Three Phase Motor
            - Low Voltage Network Protection,Network Protector,True

            - Low Voltage Power Conversion,Single Phase Inverter
            - Low Voltage Power Conversion,Single Phase Rectifier
            - Low Voltage Power Conversion,Three Phase Inverter
            - Low Voltage Power Conversion,Three Phase Rectifier
            - Low Voltage Power Factor Correcting,Mobile Harmonic Filter
            - Low Voltage Power Factor Correcting,Mobile Reactor
            - Low Voltage Power Factor Correcting,Overhead Capacitor
            - Low Voltage Power Factor Correcting,Overhead Harmonic Filter
            - Low Voltage Power Factor Correcting,Overhead Reactor
            - Low Voltage Power Factor Correcting,Station Capacitor
            - Low Voltage Power Factor Correcting,Station Harmonic Filter
            - Low Voltage Power Factor Correcting,Station Reactor
            - Low Voltage Service,DC Commercial
            - Low Voltage Switch,AC Station
            - Low Voltage Switch,DC Station
            - Low Voltage Switch,Overhead Jumper
    - Junctions
        - Removed
            - High Voltage Line End,AC
            - High Voltage Line End,AC Busbar Terminator
            - High Voltage Line End,AC Riser
            - High Voltage Line End,DC
            - High Voltage Line End,DC Busbar Terminator
            - High Voltage Line End,DC Riser
            - Low Voltage Attachment,Overhead,20
            - Low Voltage Attachment,Underground
            - Low Voltage Attachment,Unknown
            - Low Voltage Connection Point,Busbar Tap
            - Low Voltage Connection Point,Overhead Solid Connection
            - Low Voltage Connection Point,Overhead Splice
            - Low Voltage Connection Point,Overhead Tap
            - Low Voltage Connection Point,Underground Solid Connection
            - Low Voltage Connection Point,Underground Splice
            - Low Voltage Connection Point,Unknown
            - Low Voltage Line End,Overhead Line End
            - Low Voltage Line End,Overhead Wire Change
            - Low Voltage Line End,Riser
            - Low Voltage Line End,Underground Terminator

        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground
        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Line End,AC Busbar Terminator
    - High Voltage Line End,DC Busbar Terminator
    - Low Voltage Attachment,AC Overhead
    - Low Voltage Attachment,AC Riser
    - Low Voltage Attachment,AC Underground
    - Low Voltage Attachment,DC Overhead
    - Low Voltage Attachment,DC Riser
    - Low Voltage Attachment,DC Underground
    - Low Voltage Attachment,Unknown
    - Low Voltage Connection Point,AC Busbar Tap
    - Low Voltage Connection Point,AC Overhead Solid Connection
    - Low Voltage Connection Point,AC Overhead Splice
    - Low Voltage Connection Point,AC Overhead Tap
    - Low Voltage Connection Point,AC Underground Solid Connection
    - Low Voltage Connection Point,AC Underground Splice
    - Low Voltage Connection Point,DC Busbar Tap
    - Low Voltage Connection Point,DC Overhead Solid Connection
    - Low Voltage Connection Point,DC Overhead Splice

            - Low Voltage Connection Point,DC Overhead Tap
            - Low Voltage Connection Point,DC Underground Solid Connection
            - Low Voltage Connection Point,DC Underground Splice
            - Low Voltage Connection Point,Unknown
            - Low Voltage Line End,AC Overhead Line End
            - Low Voltage Line End,AC Overhead Wire Change
            - Low Voltage Line End,AC Underground Terminator
            - Low Voltage Line End,DC Overhead Line End
            - Low Voltage Line End,DC Underground Terminator
            - Low Voltage Line End,Unknown
            - Medium Voltage Attachment,Overhead
            - Medium Voltage Attachment,Underground
            - Medium Voltage Attachment,Unknown
            - Medium Voltage Connection Point,Busbar Tap
            - Medium Voltage Connection Point,Neutral Connection
            - Medium Voltage Connection Point,Overhead Solid Connection
            - Medium Voltage Connection Point,Overhead Splice
            - Medium Voltage Connection Point,Overhead Tap
            - Medium Voltage Connection Point,Underground Solid Connection
            - Medium Voltage Connection Point,Underground Splice
            - Medium Voltage Connection Point,Unknown
            - Medium Voltage Line End,Busbar Terminator
            - Medium Voltage Line End,Overhead Line End
            - Medium Voltage Line End,Overhead Wire Change
            - Medium Voltage Line End,Underground Terminator
            - Medium Voltage Line End,Underground Wire Change
            - Medium Voltage Line End,Unknown
    - Lines
        - Removed
            - Low Voltage Busbar,Cabinet
            - Low Voltage Busbar,Station
            - Low Voltage Conductor,Overhead
            - Low Voltage Conductor,Submersible
            - Low Voltage Conductor,Underground
            - Low Voltage Connector,Connector
        - Added
            - Ground,Bare
            - Ground,Shielded

            - Low Voltage Busbar,AC Cabinet
            - Low Voltage Busbar,AC Station
            - Low Voltage Busbar,DC Cabinet
            - Low Voltage Busbar,DC Station
            - Low Voltage Conductor,AC Overhead
            - Low Voltage Conductor,AC Submersible
            - Low Voltage Conductor,AC Underground
            - Low Voltage Conductor,DC Overhead
            - Low Voltage Conductor,DC Submersible
            - Low Voltage Conductor,DC Underground
            - Low Voltage Connector,AC Connector
            - Low Voltage Connector,DC Connector
    - Controllers
        - Added
            - Medium Voltage Transformer,Network
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
- Electric Secondary Radial
    - Devices
        - Removed
            - Low Voltage Arrester,LV Indoor Arrester
            - Low Voltage Arrester,LV Overhead Arrester
            - Low Voltage Arrester,LV Station Arrester
            - Low Voltage Arrester,LV Underground Arrester
            - Low Voltage Line Monitor and Relay,LV Fault Indicator,False
            - Low Voltage Line Monitor and Relay,LV Load Monitor
            - Low Voltage Line Monitor and Relay,LV Relay
            - Low Voltage Motor,LV Single Phase Motor
            - Low Voltage Motor,LV Three Phase Motor
            - Low Voltage Power Conversion,LV Single Phase Inverter,False
            - Low Voltage Power Conversion,LV Single Phase Rectifier
            - Low Voltage Power Conversion,LV Three Phase Inverter
            - Low Voltage Power Conversion,LV Three Phase Rectifier
            - Low Voltage Power Factor Correcting,LV Mobile Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Mobile Reactor
            - Low Voltage Power Factor Correcting,LV Overhead Capacitor

            - Low Voltage Power Factor Correcting,LV Overhead Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Overhead Reactor
            - Low Voltage Power Factor Correcting,LV Station Capacitor
            - Low Voltage Power Factor Correcting,LV Station Harmonic Filter
            - Low Voltage Power Factor Correcting,LV Station Reactor
            - Low Voltage Switch,LV Overhead Jumper
            - Medium Voltage Transformer,Overhead Three Phase
            - Medium Voltage Transformer,Pad Mounted Three Phase
        - Added
            - Low Voltage Arrester,Indoor Arrester
            - Low Voltage Arrester,Overhead Arrester
            - Low Voltage Arrester,Station Arrester
            - Low Voltage Arrester,Underground Arrester
            - Low Voltage Line Monitor and Relay,Fault Indicator,False
            - Low Voltage Line Monitor and Relay,Instrument Transformer
            - Low Voltage Line Monitor and Relay,Load Monitor
            - Low Voltage Line Monitor and Relay,Relay
            - Low Voltage Motor,DC Motor
            - Low Voltage Motor,Single Phase Motor
            - Low Voltage Motor,Three Phase Motor
            - Low Voltage Power Conversion,Single Phase Inverter
            - Low Voltage Power Conversion,Single Phase Rectifier
            - Low Voltage Power Conversion,Three Phase Inverter
            - Low Voltage Power Conversion,Three Phase Rectifier
            - Low Voltage Power Factor Correcting,Mobile Harmonic Filter
            - Low Voltage Power Factor Correcting,Mobile Reactor
            - Low Voltage Power Factor Correcting,Overhead Capacitor
            - Low Voltage Power Factor Correcting,Overhead Harmonic Filter
            - Low Voltage Power Factor Correcting,Overhead Reactor
            - Low Voltage Power Factor Correcting,Station Capacitor
            - Low Voltage Power Factor Correcting,Station Harmonic Filter
            - Low Voltage Power Factor Correcting,Station Reactor
            - Low Voltage Service,DC Commercial
            - Low Voltage Switch,AC Station
            - Low Voltage Switch,DC Station
            - Low Voltage Switch,Overhead Jumper
            - Medium Voltage Transformer,Network
    - Junctions

- Removed
  - High Voltage Line End,AC
  - High Voltage Line End,AC Busbar Terminator
  - High Voltage Line End,AC Riser
  - High Voltage Line End,DC
  - High Voltage Line End,DC Busbar Terminator
  - High Voltage Line End,DC Riser
  - Low Voltage Attachment,Overhead,20
  - Low Voltage Attachment,Underground
  - Low Voltage Attachment,Unknown
  - Low Voltage Connection Point,Busbar Tap
  - Low Voltage Connection Point,Overhead Solid Connection
  - Low Voltage Connection Point,Overhead Splice
  - Low Voltage Connection Point,Overhead Tap
  - Low Voltage Connection Point,Underground Solid Connection
  - Low Voltage Connection Point,Underground Splice
  - Low Voltage Connection Point,Unknown
  - Low Voltage Line End,Overhead Line End
  - Low Voltage Line End,Overhead Wire Change
  - Low Voltage Line End,Riser
  - Low Voltage Line End,Underground Terminator
  - Low Voltage Line End,Unknown
  - Medium Voltage Attachment,Overhead
  - Medium Voltage Attachment,Underground
  - Medium Voltage Attachment,Unknown
  - Medium Voltage Connection Point,Busbar Tap
  - Medium Voltage Connection Point,Neutral Connection
  - Medium Voltage Connection Point,Overhead Solid Connection
  - Medium Voltage Connection Point,Overhead Splice
  - Medium Voltage Connection Point,Overhead Tap
  - Medium Voltage Connection Point,Underground Solid Connection
  - Medium Voltage Connection Point,Underground Splice
  - Medium Voltage Connection Point,Unknown
  - Medium Voltage Line End,Busbar Terminator
  - Medium Voltage Line End,Overhead Line End
  - Medium Voltage Line End,Overhead Wire Change
  - Medium Voltage Line End,Riser
  - Medium Voltage Line End,Underground Terminator

        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Line End,AC Busbar Terminator
    - High Voltage Line End,DC Busbar Terminator
    - Low Voltage Attachment,AC Overhead
    - Low Voltage Attachment,AC Riser
    - Low Voltage Attachment,AC Underground
    - Low Voltage Attachment,DC Overhead
    - Low Voltage Attachment,DC Riser
    - Low Voltage Attachment,DC Underground
    - Low Voltage Attachment,Unknown
    - Low Voltage Connection Point,AC Busbar Tap
    - Low Voltage Connection Point,AC Overhead Solid Connection
    - Low Voltage Connection Point,AC Overhead Splice
    - Low Voltage Connection Point,AC Overhead Tap
    - Low Voltage Connection Point,AC Underground Solid Connection
    - Low Voltage Connection Point,AC Underground Splice
    - Low Voltage Connection Point,DC Busbar Tap
    - Low Voltage Connection Point,DC Overhead Solid Connection
    - Low Voltage Connection Point,DC Overhead Splice
    - Low Voltage Connection Point,DC Overhead Tap
    - Low Voltage Connection Point,DC Underground Solid Connection
    - Low Voltage Connection Point,DC Underground Splice
    - Low Voltage Connection Point,Unknown
    - Low Voltage Line End,AC Overhead Line End
    - Low Voltage Line End,AC Overhead Wire Change
    - Low Voltage Line End,AC Underground Terminato-r
    - Low Voltage Line End,DC Overhead Line End
    - Low Voltage Line End,DC Underground Terminator
    - Low Voltage Line End,Unknown
    - Medium Voltage Attachment,Overhead
    - Medium Voltage Attachment,Underground
    - Medium Voltage Attachment,Unknown
    - Medium Voltage Connection Point,Busbar Tap
    - Medium Voltage Connection Point,Neutral Connection
    - Medium Voltage Connection Point,Overhead Solid Connection
    - Medium Voltage Connection Point,Overhead Splice

        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Lines
    - Removed
        - Low Voltage Busbar,Cabinet
        - Low Voltage Busbar,Station
        - Low Voltage Conductor,Overhead
        - Low Voltage Conductor,Submersible
        - Low Voltage Conductor,Underground
        - Low Voltage Connector,Connector
    - Added
        - Ground,Bare
        - Ground,Shielded
        - Low Voltage Busbar,AC Cabinet
        - Low Voltage Busbar,AC Station
        - Low Voltage Busbar,DC Cabinet
        - Low Voltage Busbar,DC Station
        - Low Voltage Conductor,AC Overhead
        - Low Voltage Conductor,AC Submersible
        - Low Voltage Conductor,AC Underground
        - Low Voltage Conductor,DC Overhead
        - Low Voltage Conductor,DC Submersible
        - Low Voltage Conductor,DC Underground
        - Low Voltage Connector,AC Connector
        - Low Voltage Connector,DC Connector
- Controllers
    - Removed
        - Medium Voltage Transformer,Overhead Three Phase
        - Medium Voltage Transformer,Pad Mounted Three Phase
    - Added
        -

            - Medium Voltage Transformer,Network
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
- Electric Subtransmission
    - Devices
        - Removed
            - High Voltage Arrester,HV Indoor Arrester
            - High Voltage Arrester,HV Line Arrester
            - High Voltage Arrester,HV Station Arrester
            - High Voltage Control Unit,HV Capacitor
            - High Voltage Line Monitor and Relay,HV Fault Indicator
            - High Voltage Line Monitor and Relay,HV Instrument Transformer
            - High Voltage Line Monitor and Relay,HV Load Monitor
            - High Voltage Line Monitor and Relay,HV Relay
            - High Voltage Transformer,HV Grounding Transformer,False
            - Medium Voltage Arrester,MV Elbow Arrester
            - Medium Voltage Arrester,MV Line Arrester
            - Medium Voltage Arrester,MV Station Arrester
            - Medium Voltage Circuit Breaker,Two Phase Circuit Breaker,False
            - Medium Voltage Control Unit,MV Capacitor
            - Medium Voltage Control Unit,MV Circuit Breaker
            - Medium Voltage Control Unit,MV Recloser
            - Medium Voltage Control Unit,MV Regulator
            - Medium Voltage Control Unit,MV Transfer Switch Controller
            - Medium Voltage Line Monitor and Relay,MV Instrument Transformer
            - Medium Voltage Line Monitor and Relay,MV Relay
            - Medium Voltage Switch,Overhead Single Phase Recloser
            - Medium Voltage Switch,Overhead Single Phase Sectionalizer
            - Medium Voltage Switch,Overhead Three Phase Recloser
            - Medium Voltage Switch,Overhead Three Phase Sectionalizer
            - Medium Voltage Switch,Pad Mounted Single Phase Recloser
            - Medium Voltage Switch,Pad Mounted Single Phase Sectionalizer
            - Medium Voltage Switch,Pad Mounted Three Phase Recloser
            - Medium Voltage Switch,Pad Mounted Three Phase Sectionalizer
            - Medium Voltage Transformer,Overhead Step Single Phase

        - Medium Voltage Transformer,Overhead Step Three Phase
        - Medium Voltage Transformer,Pad Mounted Step Single Phase
        - Medium Voltage Transformer,Pad Mounted Step Three Phase
- Added
    - High Voltage Arrester,Indoor Arrester
    - High Voltage Arrester,Line Arrester
    - High Voltage Arrester,Station Arrester
    - High Voltage Control Unit,Capacitor
    - High Voltage Generation,Battery,False
    - High Voltage Generation,Biomass
    - High Voltage Generation,Coal
    - High Voltage Generation,Gas Turbine
    - High Voltage Generation,Geothermal
    - High Voltage Generation,Hydro
    - High Voltage Generation,Nuclear
    - High Voltage Generation,Photovoltaic Solar
    - High Voltage Generation,Thermal Solar
    - High Voltage Generation,Wind
    - High Voltage Line Monitor and Relay,Fault Indicator
    - High Voltage Line Monitor and Relay,Instrument Transformer
    - High Voltage Line Monitor and Relay,Load Monitor
    - High Voltage Line Monitor and Relay,Relay
    - High Voltage Transformer,Grounding Transformer
    - Medium Voltage Arrester,Elbow Arrester
    - Medium Voltage Arrester,Line Arrester
    - Medium Voltage Arrester,Station Arrester
    - Medium Voltage Control Unit,Capacitor
    - Medium Voltage Control Unit,Circuit Breaker
    - Medium Voltage Control Unit,Recloser
    - Medium Voltage Control Unit,Regulator
    - Medium Voltage Control Unit,Transfer Switch Controller
    - Medium Voltage Line Monitor and Relay,Instrument Transformer
    - Medium Voltage Line Monitor and Relay,Relay
    - Medium Voltage Recloser,Overhead Single Phase Recloser
    - Medium Voltage Recloser,Overhead Three Phase Recloser
    - Medium Voltage Recloser,Pad Mounted Single Phase Recloser
    - Medium Voltage Recloser,Pad Mounted Three Phase Recloser
    - Medium Voltage Sectionalizer,Overhead Single Phase Sectionalizer

        - Medium Voltage Sectionalizer,Overhead Three Phase Sectionalizer
        - Medium Voltage Sectionalizer,Pad Mounted Single Phase Sectionalizer
        - Medium Voltage Sectionalizer,Pad Mounted Three Phase Sectionalizer
        - Medium Voltage Step Transformer,Overhead Step Down Single Phase
        - Medium Voltage Step Transformer,Overhead Step Down Three Phase
        - Medium Voltage Step Transformer,Overhead Step Up Single Phase
        - Medium Voltage Step Transformer,Overhead Step Up Three Phase
        - Medium Voltage Step Transformer,Pad Mounted Step Down Single Phase
        - Medium Voltage Step Transformer,Pad Mounted Step Down Three Phase
        - Medium Voltage Step Transformer,Pad Mounted Step Up Single Phase
        - Medium Voltage Step Transformer,Pad Mounted Step Up Three Phase
- Junctions
    - Removed
        - High Voltage Connection Point,AC Busbar Tap
        - High Voltage Connection Point,AC Overhead Splice
        - High Voltage Connection Point,AC Tap
        - High Voltage Connection Point,DC Busbar Tap
        - High Voltage Connection Point,DC Overhead Splice
        - High Voltage Connection Point,DC Tap
        - High Voltage Connection Point,Unknown
        - High Voltage Line End,AC
        - High Voltage Line End,AC Busbar Terminator
        - High Voltage Line End,AC Riser
        - High Voltage Line End,DC
        - High Voltage Line End,DC Busbar Terminator
        - High Voltage Line End,DC Riser
        - High Voltage Line End,Unknown
        - Low Voltage Attachment,Overhead
        - Low Voltage Attachment,Underground
        - Low Voltage Attachment,Unknown
        - Low Voltage Connection Point,Busbar Tap
        - Low Voltage Connection Point,Overhead Solid Connection
        - Low Voltage Connection Point,Overhead Splice

        - Low Voltage Connection Point,Overhead Tap
        - Low Voltage Connection Point,Underground Solid Connection
        - Low Voltage Connection Point,Underground Splice
        - Low Voltage Connection Point,Unknown
        - Low Voltage Line End,Overhead Line End
        - Low Voltage Line End,Overhead Wire Change
        - Low Voltage Line End,Riser
        - Low Voltage Line End,Underground Terminator
        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground
        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Attachment,AC Riser
    - High Voltage Attachment,DC Riser
    - High Voltage Connection Point,AC Busbar Tap
    - High Voltage Connection Point,AC Overhead Splice
    - High Voltage Connection Point,AC Tap
    - High Voltage Connection Point,DC Busbar Tap
    - High Voltage Connection Point,DC Overhead Splice
    - High Voltage Connection Point,DC Tap
    - High Voltage Connection Point,Unknown
    - High Voltage Line End,AC Busbar Terminator

            - High Voltage Line End,DC Busbar Terminator
            - High Voltage Line End,Unknown
            - Low Voltage Attachment,AC Overhead
            - Low Voltage Attachment,AC Underground
            - Low Voltage Attachment,Unknown
            - Low Voltage Connection Point,AC Busbar Tap
            - Low Voltage Connection Point,AC Overhead Solid Connection
            - Low Voltage Connection Point,AC Overhead Splice
            - Low Voltage Connection Point,AC Overhead Tap
            - Low Voltage Connection Point,AC Underground Solid Connection
            - Low Voltage Connection Point,AC Underground Splice
            - Low Voltage Connection Point,Unknown
            - Low Voltage Line End,AC Overhead Line End
            - Low Voltage Line End,AC Overhead Wire Change
            - Low Voltage Line End,AC Underground Terminator
            - Low Voltage Line End,Unknown
            - Medium Voltage Attachment,Overhead
            - Medium Voltage Attachment,Underground
            - Medium Voltage Attachment,Unknown
            - Medium Voltage Connection Point,Busbar Tap
            - Medium Voltage Connection Point,Neutral Connection
            - Medium Voltage Connection Point,Overhead Solid Connection
            - Medium Voltage Connection Point,Overhead Splice
            - Medium Voltage Connection Point,Overhead Tap
            - Medium Voltage Connection Point,Underground Solid Connection
            - Medium Voltage Connection Point,Underground Splice
            - Medium Voltage Connection Point,Unknown
            - Medium Voltage Line End,Busbar Terminator
            - Medium Voltage Line End,Overhead Line End
            - Medium Voltage Line End,Overhead Wire Change
            - Medium Voltage Line End,Underground Terminator
            - Medium Voltage Line End,Underground Wire Change
            - Medium Voltage Line End,Unknown
    - Lines
        - Added
            - Ground,Bare
            - Ground,Shielded
    - Function Summaries

        - Changed
            - ADD,Shape length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:High to Medium Voltage Cable
                - ADD,Measured Length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:High to Medium Voltage Cable
    - Conditional Barriers
        - Changed
            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
                - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR
- Electric Transmission
    - Devices
        - Removed
            - High Voltage Arrester,HV Indoor Arrester
            - High Voltage Arrester,HV Line Arrester
            - High Voltage Arrester,HV Station Arrester
            - High Voltage Control Unit,HV Capacitor
            - High Voltage Line Monitor and Relay,HV Fault Indicator
            - High Voltage Line Monitor and Relay,HV Instrument Transformer
            - High Voltage Line Monitor and Relay,HV Load Monitor
            - High Voltage Line Monitor and Relay,HV Relay
            - High Voltage Transformer,HV Grounding Transformer
        - Added
            - High Voltage Arrester,Indoor Arrester
            - High Voltage Arrester,Line Arrester
            - High Voltage Arrester,Station Arrester
            - High Voltage Control Unit,Capacitor
            - High Voltage Generation,Battery,False
            - High Voltage Generation,Biomass
            - High Voltage Generation,Coal
            - High Voltage Generation,Gas Turbine
            - High Voltage Generation,Geothermal
            - High Voltage Generation,Hydro
            - High Voltage Generation,Nuclear
            - High Voltage Generation,Photovoltaic Solar
            - High Voltage Generation,Thermal Solar
            - High Voltage Generation,Wind
            - High Voltage Line Monitor and Relay,Fault Indicator

        - High Voltage Line Monitor and Relay,Instrument Transformer
        - High Voltage Line Monitor and Relay,Load Monitor
        - High Voltage Line Monitor and Relay,Relay
        - High Voltage Switch,AC Grounding
        - High Voltage Transformer,Grounding Transformer
- Junctions
    - Removed
        - High Voltage Connection Point,AC Busbar Tap
        - High Voltage Connection Point,AC Overhead Splice
        - High Voltage Connection Point,AC Tap
        - High Voltage Connection Point,DC Busbar Tap
        - High Voltage Connection Point,DC Overhead Splice
        - High Voltage Connection Point,DC Tap
        - High Voltage Connection Point,Unknown
        - High Voltage Line End,AC
        - High Voltage Line End,AC Busbar Terminator
        - High Voltage Line End,AC Riser
        - High Voltage Line End,DC
        - High Voltage Line End,DC Busbar Terminator
        - High Voltage Line End,DC Riser
        - High Voltage Line End,Unknown
        - Low Voltage Attachment,Overhead
        - Low Voltage Attachment,Underground
        - Low Voltage Attachment,Unknown
        - Low Voltage Connection Point,Busbar Tap
        - Low Voltage Connection Point,Overhead Solid Connection
        - Low Voltage Connection Point,Overhead Splice
        - Low Voltage Connection Point,Overhead Tap
        - Low Voltage Connection Point,Underground Solid Connection
        - Low Voltage Connection Point,Underground Splice
        - Low Voltage Connection Point,Unknown
        - Low Voltage Line End,Overhead Line End
        - Low Voltage Line End,Overhead Wire Change
        - Low Voltage Line End,Riser
        - Low Voltage Line End,Underground Terminator
        - Low Voltage Line End,Unknown
        - Medium Voltage Attachment,Overhead
        - Medium Voltage Attachment,Underground

        - Medium Voltage Attachment,Unknown
        - Medium Voltage Connection Point,Busbar Tap
        - Medium Voltage Connection Point,Neutral Connection
        - Medium Voltage Connection Point,Overhead Solid Connection
        - Medium Voltage Connection Point,Overhead Splice
        - Medium Voltage Connection Point,Overhead Tap
        - Medium Voltage Connection Point,Underground Solid Connection
        - Medium Voltage Connection Point,Underground Splice
        - Medium Voltage Connection Point,Unknown
        - Medium Voltage Line End,Busbar Terminator
        - Medium Voltage Line End,Overhead Line End
        - Medium Voltage Line End,Overhead Wire Change
        - Medium Voltage Line End,Riser
        - Medium Voltage Line End,Underground Terminator
        - Medium Voltage Line End,Underground Wire Change
        - Medium Voltage Line End,Unknown
- Added
    - High Voltage Attachment,AC Riser
    - High Voltage Attachment,DC Riser
    - High Voltage Connection Point,AC Busbar Tap
    - High Voltage Connection Point,AC Overhead Splice
    - High Voltage Connection Point,AC Tap
    - High Voltage Connection Point,DC Busbar Tap
    - High Voltage Connection Point,DC Overhead Splice
    - High Voltage Connection Point,DC Tap
    - High Voltage Connection Point,Unknown
    - High Voltage Line End,AC Busbar Terminator
    - High Voltage Line End,DC Busbar Terminator
    - High Voltage Line End,Unknown
    - Low Voltage Attachment,AC Overhead
    - Low Voltage Attachment,AC Underground
    - Low Voltage Attachment,Unknown
    - Low Voltage Connection Point,AC Busbar Tap
    - Low Voltage Connection Point,AC Overhead Solid Connection
    - Low Voltage Connection Point,AC Overhead Splice
    - Low Voltage Connection Point,AC Overhead Tap
    - Low Voltage Connection Point,AC Underground Solid Connection
    - Low Voltage Connection Point,AC Underground Splice

                - Low Voltage Connection Point,Unknown
                - Low Voltage Line End,AC Overhead Line End
                - Low Voltage Line End,AC Overhead Wire Change
                - Low Voltage Line End,AC Underground Terminator
                - Low Voltage Line End,Unknown
                - Medium Voltage Attachment,Overhead
                - Medium Voltage Attachment,Underground
                - Medium Voltage Attachment,Unknown
                - Medium Voltage Connection Point,Busbar Tap
                - Medium Voltage Connection Point,Neutral Connection
                - Medium Voltage Connection Point,Overhead Solid Connection
                - Medium Voltage Connection Point,Overhead Splice
                - Medium Voltage Connection Point,Overhead Tap
                - Medium Voltage Connection Point,Underground Solid Connection
                - Medium Voltage Connection Point,Underground Splice
                - Medium Voltage Connection Point,Unknown
                - Medium Voltage Line End,Busbar Terminator
                - Medium Voltage Line End,Overhead Line End
                - Medium Voltage Line End,Overhead Wire Change
                - Medium Voltage Line End,Underground Terminator
                - Medium Voltage Line End,Underground Wire Change
                - Medium Voltage Line End,Unknown
        - Junctions
            - Added
                - Ground,Bare
                - Ground,Shielded
    - Function Summaries
        - Removed
            - ADD,Shape length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:High Voltage Cable
        - Added
            - ADD,E:Power,totalgenerationkw,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:Generation
            - ADD,Measured Length,circuitlength,CATEGORY,Category,IS_EQUAL_TO,SPECIFIC_VALUE,E:High Voltage Cable
    - Conditional Barriers
        - Changed

            - NETWORK_ATTRIBUTE,E:Device Status,IS_EQUAL_TO,SPECIFIC_VALUE,1,OR
            - NETWORK_ATTRIBUTE,E:Device Status,DOES_NOT_EQUAL,SPECIFIC_VALUE,2,OR

Domains

- Changes to the asset type domains are listed in the Utility Network section
    - Added
        - Communications_Conduit_Type
            - 0 : Unknown
            - 1 : Abandoned Electric Conduit
            - 2 : Abandoned Gas Pipe
            - 3 : Abandoned Water Pipe
            - 4 : Sewer Pipe
            - 5 : Storm Pipe
        - Communications_Conduit_Type
            - 0 : Unknown
            - 20 : Submarine
            - 25 : National
            - 30 : Regional
            - 35 : Distribution
            - 40 : Access
            - 45 : Drop
            - 50 : Indoor
            - 60 : Wireless
        - Communications_Wireless_Tower_Type
            - 0 : Unknown
            - 1 : Monopole
            - 2 : Guyed
            - 3 : Lattice
            - 4 : Roof Top
            - 5 : Stealth
            - 6 : In Building
        - Electric_Busbar_Material
            - 0 : Unknown
            - 401 : Solid Aluminium
            - 402 : Solid Copper
            - 403 : Solid Steel

- Electric_Capacitor_Type
  - 0 : Unknown
  - 1 : kVA-PF
  - 2 : AMP-PF
  - 3 : kW-kVAR
- Electric_Closing_Mode
  - 0 : Unknown
  - 1 : Normal Reclose
  - 2 : Remote Block
- Electric_Combined_Conductor_Material
  - 0 : Unknown
  - 1 : #1 ACSR
  - 2 : #1 AL
  - 3 : #1 B.STRD
  - 4 : #1 CU
  - 5 : #1 WP
  - 6 : #2 PID AL
  - 7 : #2 3/4 AWAC
  - 8 : #2 4/3 AWAC
  - 9 : #2 5/2 AWAC
  - 10 : #2 5005
  - 11 : #2 AAAC
  - 12 : #2 AAC
  - 13 : #2 AACTW
  - 14 : #2 ACAR
  - 15 : #2 ACSR
  - 17 : #2 ACSR/SD
  - 18 : #2 ACSRTW
  - 19 : #2 AER.CAB
  - 20 : #2 AL
  - 21 : #2 AWA
  - 22 : #2 AWAC
  - 23 : #2 B.SOL
  - 24 : #2 B.STRD
  - 25 : #2 CU
  - 26 : #2 CU PILC
  - 27 : #2 HD
  - 28 : #2 PECN

- 29 : #2 PECN AL
- 30 : #2 PECN CU
- 31 : #2 PECN-PEJ AL
- 32 : #2 PECN-PEJ PID
- 33 : #2 PECN-PEJ PID AL
- 34 : #2 PECN-PID AL
- 35 : #2 PID AL
- 36 : #2 PID CU
- 37 : #2 PID-PEJ AL
- 38 : #2 PILC
- 39 : #2 PILC NJ CU
- 40 : #2 PILC-NJ
- 41 : #2 PILC-PEJ
- 42 : #2 PILC-PEJ CU
- 43 : #2 SOL
- 44 : #2 SOL PECN-PEJ AL
- 45 : #2 SOL TRXLPECN-PEJ AL PID
- 46 : #2 SOL XLPECN-PEJ
- 47 : #2 THW
- 48 : #2 TREE
- 49 : #2 TRXLPECN-PEJ AL PID
- 50 : #2 WP
- 51 : #2 WPAL
- 52 : #2 WPCU
- 53 : #2 XLPECN AL
- 54 : #2 XLPECN-PEJ
- 55 : #2 XLPECN-PEJ AL
- 56 : #2 XLPE-PEJ AL
- 57 : #2/7 TREE
- 58 : #2SOL TRXLPECN-PEJ AL PID
- 59 : #4 5005
- 60 : #4 ACSR
- 61 : #4 ACSRTW
- 62 : #4 AL
- 63 : #4 B.SOL
- 64 : #4 B.STRD
- 65 : #4 CU
- 66 : #4 GAL

- 67 : #4 HD
- 68 : #4 LEAD
- 69 : #4 NEOPRENE
- 70 : #4 PAA
- 71 : #4 PECN
- 72 : #4 PECN CU
- 73 : #4 PELPE CU
- 74 : #4 PID CU
- 75 : #4 PILC
- 76 : #4 PILC-NJ
- 77 : #4 PILC-PEJ CU
- 78 : #4 THW
- 79 : #4 TREE
- 80 : #4 WP
- 81 : #4 WPAL
- 82 : #4 WPCU
- 83 : #4A CUWELD
- 84 : #4D CUWELD
- 85 : #4N CUWELD
- 86 : #6 AL
- 87 : #6 B.SOL
- 88 : #6 B.STRD
- 89 : #6 CU
- 90 : #6 CUWELD
- 91 : #6 CW
- 92 : #6 GAL
- 93 : #6 HD
- 94 : #6 LEAD
- 95 : #6 PILC
- 96 : #6 PILC-PEJ CU
- 97 : #6 SOLID
- 98 : #6 THW
- 99 : #6 TREE
- 100 : #6 WP
- 101 : #6 WPAL
- 102 : #6 WPCU
- 103 : #6A CUWELD
- 104 : #8 AL

- 105 : #8 B.STRD
- 106 : #8 CU
- 107 : #8 CUWELD
- 108 : #8 HD
- 109 : #8 SOL
- 110 : #8 WP
- 111 : #8 WPCU
- 112 : #8A CUWELD
- 113 : 1 ACSR
- 114 : 1 ACSRTW
- 115 : 1/0 15kV SpacerCable
- 116 : 1/0 4/3 AWAC
- 117 : 1/0 5005
- 118 : 1/0 AAAC
- 119 : 1/0 AAC
- 120 : 1/0 ACAR
- 121 : 1/0 ACSR
- 122 : 1/0 ACSRTW
- 123 : 1/0 AER.CAB
- 124 : 1/0 AL
- 125 : 1/0 ALUMOWELD
- 126 : 1/0 AWA
- 127 : 1/0 B.STRD
- 128 : 1/0 CU
- 129 : 1/0 LEAD
- 130 : 1/0 OTH
- 131 : 1/0 PAA
- 132 : 1/0 PILC
- 133 : 1/0 PILC-NJ
- 134 : 1/0 STEEL
- 135 : 1/0 THW
- 136 : 1/0 TREE
- 137 : 1/0 WP
- 138 : 1/0 WPAL
- 139 : 1/0 WPCU
- 140 : 1000 PECN AL
- 141 : 1000 PECN-PEJ AL
- 142 : 1000 PILC-PEJ CU

- 143 : 1000 TRXLPECN-PEJ CU
- 144 : 1000 XLPE AL
- 145 : 1000 XLPECN AL
- 146 : 1000 XLPECN-PEJ
- 147 : 1000 XLPECN-PEJ AL
- 148 : 1000 XLPE-PEJ AL
- 149 : 1033 ACSR
- 150 : 1033 AL
- 151 : 1250 RUBBER
- 152 : 2/0 AAAC
- 153 : 2/0 ACSR
- 154 : 2/0 ACSRTW
- 155 : 2/0 AL
- 156 : 2/0 B.STRD
- 157 : 2/0 CU
- 158 : 2/0 PECN AL
- 159 : 2/0 PECN-PEJ AL
- 160 : 2/0 PILC
- 161 : 2/0 WP
- 162 : 2/0 WPAL
- 163 : 2/0 WPCU
- 164 : 2/0 XLPE AL
- 165 : 2/0 XLPECN-PEJ
- 166 : 2/0 XLPECN-PEJ AL
- 167 : 2/0 XLPE-PEJ AL
- 168 : 250 AAC
- 169 : 250 AL
- 170 : 250 B.STRD
- 171 : 250 CU
- 172 : 3 ACSR
- 173 : 3 AL
- 174 : 3 CU
- 175 : 3 WPCU
- 176 : 3/0 5/2 AWAC
- 177 : 3/0 5005
- 178 : 3/0 ACSR
- 179 : 3/0 AL
- 180 : 3/0 B.STRD

- 181 : 3/0 CU
- 182 : 3/0 WP
- 183 : 336 AAC
- 184 : 336 AACTW
- 185 : 336 ACAR
- 186 : 336 ACSR
- 187 : 336 ACSRTW
- 188 : 336 AL
- 189 : 336 CU
- 190 : 336 WPAL
- 191 : 336.4 ACSR
- 192 : 336.4 PAA
- 193 : 350 EPR-PEJ CU
- 194 : 350 PECN AL
- 195 : 350 PECN-PEJ AL
- 196 : 350 XLPE AL
- 197 : 350 XLPECN-PEJ
- 198 : 350 XLPECN-PEJ AL
- 199 : 355 ACAR
- 200 : 394.5 5005
- 201 : 394.5 BNDL 5005
- 202 : 395 AAAC
- 203 : 395 ACAR
- 204 : 395 ACSR
- 205 : 395 AL
- 206 : 397 AAAC
- 207 : 397 AAC
- 208 : 397 ACAR
- 209 : 397 ACSR
- 210 : 397 ACSRTW
- 211 : 397 AL
- 212 : 397 AWA
- 213 : 397 CU
- 214 : 4/0 AAAC
- 215 : 4/0 AAC
- 216 : 4/0 ACSR
- 217 : 4/0 ACSR2
- 218 : 4/0 ACSRTW

- 219 : 4/0 AER.CAB
- 220 : 4/0 AL
- 221 : 4/0 B.STRD
- 222 : 4/0 BNDL B.STRD
- 223 : 4/0 CU
- 224 : 4/0 PECN CU
- 225 : 4/0 PILC
- 226 : 4/0 PILC-PEJ CU
- 227 : 4/0 THW
- 228 : 4/0 TREE
- 229 : 4/0 WP
- 230 : 4/0 WPAL
- 231 : 4/0 WPCU
- 232 : 400K B.STRD
- 233 : 500 AL
- 234 : 500 CU
- 235 : 500 EPR-PEJ CU
- 236 : 500 PECN
- 237 : 500 PECN CU
- 238 : 500 PECN-PEJ CU
- 239 : 500 PILC
- 240 : 500 PILC-NJ
- 241 : 500 PILC-PEJ
- 242 : 500 PILC-PEJ CU
- 243 : 500 THW
- 244 : 500 XLPECN-PEJ
- 245 : 500K B.STRD
- 246 : 636 AAC
- 247 : 636 ACAR
- 48 : 636 ACSR
- 249 : 636 ACSRTW
- 250 : 636 AL
- 251 : 636 B.STRD
- 252 : 636 CU
- 253 : 750 AAAC
- 254 : 750 AAC
- 255 : 750 ACSR
- 256 : 750 AL

        - 257 : 750 AWA
        - 258 : 750 B.STRD
        - 259 : 750 CU
        - 260 : 750 EPR-PEJ
        - 261 : 750 EPR-PEJ CU
        - 262 : 750 PECN-PEJ AL
        - 263 : 750 XLPE AL
        - 264 : 750 XLPECN-PEJ
        - 265 : 750 XLPECN-PEJ AL
        - 266 : 750 XLPE-PEJ AL
        - 267 : 795 AAAC
        - 268 : 795 AAC
        - 269 : 795 ACSR
        - 270 : 795 AL
        - 401 : Solid Aluminum
        - 402 : Solid Copper
        - 403 : Solic Steel
        - 1000 : Single
        - 1001 : Duplex
        - 1002 : Triplex
        - 1003 : Quadraplex
        - 2000 : AAC
        - 2001 : ACSR
        - 2002 : AAAC
    - Electric_Combined_Maxium_Voltage
        - 0 : Unknown
        - 229 : 229 V
        - 253 : 253 V
        - 264 : 264 V
        - 440 : 440 V
        - 528 : 528 V
        - 660 : 660 V
        - 759 : 759 V
        - 1100 : 1.1 kV
        - 8000 : 8 kV
        - 15000 : 15 kV
        - 25000 : 25 kV
        - 35000 : 35 kV

        - 52000 : 52 kV
        - 72500 : 72.5 kV
        - 120000 : 120 kV
        - 145000 : 145 kV
        - 170000 : 170 kV
        - 240000 : 240 kV
        - 300000 : 300 kV
        - 362000 : 362 kV
        - 420000 : 420 kV
        - 550000 : 550 kV
        - 800000 : 800 kV
        - 1100000 : 1.1 mV
        - 1200000 : 1.2 mV
    - Electric_Configuration_Type
        - 0 : Unknown
        - 1 : Shunt
        - 2 : Series
    - Electric_Connector_Material
        - 0 : Unknown
        - 101 : ACSR
        - 102 : ACSR/AW
        - 103 : ACSR/TW
        - 104 : ACSS/AW
        - 105 : ACSS/TW
        - 106 : AAC
        - 107 : AAC/TW
        - 108 : AAAC
        - 109 : ACAR
        - 110 : Welded Aluminum Sheath
        - 111 : Copper Wires with Aluminum Sheath
        - 112 : Copper Wires with Copper Sheath
        - 113 : Copper Wires with Lead Sheath
    - Electric_DC_Low_Voltage_Nominal_Voltage
        - 0 : Unknown
        - 12 : 12 V
        - 24 : 24 V
        - 36 : 36 V
        - 48 : 48 V

        - 60 : 60 V
        - 68 : 68 V
        - 72 : 72 V
        - 110 : 110 V
        - 120 : 120 V
        - 125 : 125 V
        - 160 : 160 V
        - 380 : 380 V
        - 500 : 500 V
        - 575 : 575 V
        - 600 : 600 V
        - 750 : 750 V
        - 1000 : 1000 V
        - 1500 : 1500 V
- Electric_Discharge_Current
    - 0 : Unknown
    - 500 : .5 kA
    - 1000 : 1 kA
    - 1500 : 1.5 kA
    - 2000 : 2 kA
    - 3000 : 3 kA
    - 5000 : 5 kA
    - 10000 : 10 kA
    - 15000 : 15 kA
    - 20000 : 20 kA
    - 40000 : 40 kA
- Electric_Fuel_Type
    - 0 : Unknown
    - 1 : Ethenaol
    - 2 : Gasoline
    - 3 : Hydrogen
    - 4 : Natural Gas
    - 5 : Hydro
- Electric_Generation_Pole_Count
    - 0 : Unknown
    - 2 : 2 Pole
    - 4 : 4 Pole
    - 6 : 6 Pole

        - 8 : 8 Pole
        - 10 : 10 Pole
        - 12 : 12 Pole
        - 14 : 14 Pole
        - 16 : 16 Pole
        - 18 : 18 Pole
        - 20 : 20 Pole
        - 40 : 40 Pole
    - Electric_Generator_Control_Type
        - 0 : Unknown
        - 1 : Fixed
        - 2 : Voltage
        - 3 : Swing
    - Electric_High_Voltage_Arrestor_Design
        - 0 : Unknown
        - 1 : Intermediate
        - 2 : Station
        - 3 : Dual Rated Station
    - Electric_High_Voltage_Conductor_Material
        - 0 : Unknown
        - 101 : ACSR
        - 102 : ACSR/AW
        - 103 : ACSR/TW
        - 104 : ACSS/AW
        - 105 : ACSS/TW
        - 106 : AAC
        - 107 : AAC/TW
        - 108 : AAAC
        - 109 : ACAR
        - 110 : Welded Aluminum Sheath
        - 111 : Copper Wires with Aluminum Sheath
        - 112 : Copper Wires with Copper Sheath
        - 113 : Copper Wires with Lead Sheath
    - Electric_High_Voltage_DC_Voltage
        - 0 : Unknown
        - 18000 : 18 kV
        - 50000 : 50 kV
        - 60000 : 60 kV
        - 70000 : 70 kV

        - 75000 : 75 kV
        - 80000 : 80 kV
        - 100000 : 100 kV
        - 150000 : 150 kV
        - 180000 : 180 kV
        - 200000 : 200 kV
        - 250000 : 250 kV
        - 266000 : 266 kV
        - 270000 : 270 kV
        - 285000 : 285 kV
        - 320000 : 320 kV
        - 350000 : 350 kV
        - 400000 : 400 kV
        - 440000 : 440 kV
        - 500000 : 500 kV
        - 515000 : 515 kV
        - 525000 : 525 kV
        - 533000 : 533 kV
        - 600000 : 600 kV
        - 1000000 : 1000 kV
        - 1100000 : 1100 kV
        - 1200000 : 1200 kV
        - 1400000 : 1400 kV
        - 1500000 : 1500 kV
        - 1800000 : 1800 kV
        - 2500000 : 2500 kV
        - 3000000 : 3000 kV
        - 4000000 : 4000 kV
        - 5000000 : 5000 kV
        - 6000000 : 6000 kV
        - 6400000 : 6400 kV
        - 7200000 : 7200 kV
        - 8000000 : 8000 kV
        - 10000000 : 10000 kV
        - 12000000 : 12000 kV
    - Electric_High_Voltage_KVAR
        - 0 : Unknown
        - 50000 : 50 kVAR

        - 100000 : 100 kVAR
        - 150000 : 150 kVAR
        - 200000 : 200 kVAR
        - 300000 : 300 kVAR
        - 400000 : 400 kVAR
        - 600000 : 600 kVAR
- Electric_Light_Housing_Type
    - 0 : Unknown
    - 1 : Cobra Head
    - 2 : Security
    - 3 : Roadway
    - 4 : Flood
- Electric_Low_Voltage_Arrester_Design
    - 0 : Unknown
    - 1 : Load Break
    - 2 : Surge
    - 3 : Station
- Electric_Low_Voltage_KVAR
    - 0 : Unknown
    - 25000 : 25 kVAR
    - 50000 : 50 kVAR
    - 75000 : 75 kVAR
    - 100000 : 100 kVAR
    - 125000 : 125 kVAR
    - 150000 : 150 kVAR
    - 175000 : 175 kVAR
    - 200000 : 200 kVAR
    - 225000 : 225 kVAR
    - 250000 : 250 kVAR
- Electric_Low_Voltage_Transformer_VA
    - 0 : Unknown
    - 500 : 0.5 kVA
    - 750 : 0.75 kVA
    - 1000 : 1 kVA
    - 1500 : 1.5 kVA
    - 2000 : 2 kVA
    - 3000 : 3 kVA
    - 5000 : 5 kVA
    - 7500 : 7.5 kVA

        - 10000 : 10 kVA
        - 15000 : 15 kVA
        - 25000 : 25 kVA
- Electric_Medium_Voltage_Arrester_Design
    - 0 : Unknown
    - 1 : Load Break
    - 2 : Surge
    - 3 : Station
- Electric_Medium_Voltage_Conductor_Material
    - 0 : Unknown
    - 1 : #1 ACSR
    - 2 : #1 AL
    - 3 : #1 B.STRD
    - 4 : #1 CU
    - 5 : #1 WP
    - 6 : #2 PID AL
    - 7 : #2 3/4 AWAC
    - 8 : #2 4/3 AWAC
    - 9 : #2 5/2 AWAC
    - 10 : #2 5005
    - 11 : #2 AAAC
    - 12 : #2 AAC
    - 13 : #2 AACTW
    - 14 : #2 ACAR
    - 15 : #2 ACSR
    - 17 : #2 ACSR/SD
    - 18 : #2 ACSRTW
    - 19 : #2 AER.CAB
    - 20 : #2 AL
    - 21 : #2 AWA
    - 22 : #2 AWAC
    - 23 : #2 B.SOL
    - 24 : #2 B.STRD
    - 25 : #2 CU
    - 26 : #2 CU PILC
    - 27 : #2 HD
    - 28 : #2 PECN
    - 29 : #2 PECN AL

- 30 : #2 PECN CU
- 31 : #2 PECN-PEJ AL
- 32 : #2 PECN-PEJ PID
- 33 : #2 PECN-PEJ PID AL
- 34 : #2 PECN-PID AL
- 35 : #2 PID AL
- 36 : #2 PID CU
- 37 : #2 PID-PEJ AL
- 38 : #2 PILC
- 39 : #2 PILC NJ CU
- 40 : #2 PILC-NJ
- 41 : #2 PILC-PEJ
- 42 : #2 PILC-PEJ CU
- 43 : #2 SOL
- 44 : #2 SOL PECN-PEJ AL
- 45 : #2 SOL TRXLPECN-PEJ AL PID
- 46 : #2 SOL XLPECN-PEJ
- 47 : #2 THW
- 48 : #2 TREE
- 49 : #2 TRXLPECN-PEJ AL PID
- 50 : #2 WP
- 51 : #2 WPAL
- 52 : #2 WPCU
- 53 : #2 XLPECN AL
- 54 : #2 XLPECN-PEJ
- 55 : #2 XLPECN-PEJ AL
- 56 : #2 XLPE-PEJ AL
- 57 : #2/7 TREE
- 58 : #2SOL TRXLPECN-PEJ AL PID
- 59 : #4 5005
- 60 : #4 ACSR
- 61 : #4 ACSRTW
- 62 : #4 AL
- 63 : #4 B.SOL
- 64 : #4 B.STRD
- 65 : #4 CU
- 66 : #4 GAL
- 67 : #4 HD

- 68 : #4 LEAD
- 69 : #4 NEOPRENE
- 70 : #4 PAA
- 71 : #4 PECN
- 72 : #4 PECN CU
- 73 : #4 PELPE CU
- 74 : #4 PID CU
- 75 : #4 PILC
- 76 : #4 PILC-NJ
- 77 : #4 PILC-PEJ CU
- 78 : #4 THW
- 79 : #4 TREE
- 80 : #4 WP
- 81 : #4 WPAL
- 82 : #4 WPCU
- 83 : #4A CUWELD
- 84 : #4D CUWELD
- 85 : #4N CUWELD
- 86 : #6 AL
- 87 : #6 B.SOL
- 88 : #6 B.STRD
- 89 : #6 CU
- 90 : #6 CUWELD
- 91 : #6 CW
- 92 : #6 GAL
- 93 : #6 HD
- 94 : #6 LEAD
- 95 : #6 PILC
- 96 : #6 PILC-PEJ CU
- 97 : #6 SOLID
- 98 : #6 THW
- 99 : #6 TREE
- 100 : #6 WP
- 101 : #6 WPAL
- 102 : #6 WPCU
- 103 : #6A CUWELD
- 104 : #8 AL
- 105 : #8 B.STRD

- 106 : #8 CU
- 107 : #8 CUWELD
- 108 : #8 HD
- 109 : #8 SOL
- 110 : #8 WP
- 111 : #8 WPCU
- 112 : #8A CUWELD
- 113 : 1 ACSR
- 114 : 1 ACSRTW
- 115 : 1/0 15kV SpacerCable
- 116 : 1/0 4/3 AWAC
- 117 : 1/0 5005
- 118 : 1/0 AAAC
- 119 : 1/0 AAC
- 120 : 1/0 ACAR
- 121 : 1/0 ACSR
- 122 : 1/0 ACSRTW
- 123 : 1/0 AER.CAB
- 124 : 1/0 AL
- 125 : 1/0 ALUMOWELD
- 126 : 1/0 AWA
- 127 : 1/0 B.STRD
- 128 : 1/0 CU
- 129 : 1/0 LEAD
- 130 : 1/0 OTH
- 131 : 1/0 PAA
- 132 : 1/0 PILC
- 133 : 1/0 PILC-NJ
- 134 : 1/0 STEEL
- 135 : 1/0 THW
- 136 : 1/0 TREE
- 137 : 1/0 WP
- 138 : 1/0 WPAL
- 139 : 1/0 WPCU
- 140 : 1000 PECN AL
- 141 : 1000 PECN-PEJ AL
- 142 : 1000 PILC-PEJ CU
- 143 : 1000 TRXLPECN-PEJ CU

- 144 : 1000 XLPE AL
- 145 : 1000 XLPECN AL
- 146 : 1000 XLPECN-PEJ
- 147 : 1000 XLPECN-PEJ AL
- 148 : 1000 XLPE-PEJ AL
- 149 : 1033 ACSR
- 150 : 1033 AL
- 151 : 1250 RUBBER
- 152 : 2/0 AAAC
- 153 : 2/0 ACSR
- 154 : 2/0 ACSRTW
- 155 : 2/0 AL
- 156 : 2/0 B.STRD
- 157 : 2/0 CU
- 158 : 2/0 PECN AL
- 159 : 2/0 PECN-PEJ AL
- 160 : 2/0 PILC
- 161 : 2/0 WP
- 162 : 2/0 WPAL
- 163 : 2/0 WPCU
- 164 : 2/0 XLPE AL
- 165 : 2/0 XLPECN-PEJ
- 166 : 2/0 XLPECN-PEJ AL
- 167 : 2/0 XLPE-PEJ AL
- 168 : 250 AAC
- 169 : 250 AL
- 170 : 250 B.STRD
- 171 : 250 CU
- 172 : 3 ACSR
- 173 : 3 AL
- 174 : 3 CU
- 175 : 3 WPCU
- 176 : 3/0 5/2 AWAC
- 177 : 3/0 5005
- 178 : 3/0 ACSR
- 179 : 3/0 AL
- 180 : 3/0 B.STRD
- 181 : 3/0 CU

- 182 : 3/0 WP
- 183 : 336 AAC
- 184 : 336 AACTW
- 185 : 336 ACAR
- 186 : 336 ACSR
- 187 : 336 ACSRTW
- 188 : 336 AL
- 189 : 336 CU
- 190 : 336 WPAL
- 191 : 336.4 ACSR
- 192 : 336.4 PAA
- 193 : 350 EPR-PEJ CU
- 194 : 350 PECN AL
- 195 : 350 PECN-PEJ AL
- 196 : 350 XLPE AL
- 197 : 350 XLPECN-PEJ
- 198 : 350 XLPECN-PEJ AL
- 199 : 355 ACAR
- 200 : 394.5 5005
- 201 : 394.5 BNDL 5005
- 202 : 395 AAAC
- 203 : 395 ACAR
- 204 : 395 ACSR
- 205 : 395 AL
- 206 : 397 AAAC
- 207 : 397 AAC
- 208 : 397 ACAR
- 209 : 397 ACSR
- 210 : 397 ACSRTW
- 211 : 397 AL
- 212 : 397 AWA
- 213 : 397 CU
- 214 : 4/0 AAAC
- 215 : 4/0 AAC
- 216 : 4/0 ACSR
- 217 : 4/0 ACSR2
- 218 : 4/0 ACSRTW
- 219 : 4/0 AER.CAB

- 220 : 4/0 AL
- 221 : 4/0 B.STRD
- 222 : 4/0 BNDL B.STRD
- 223 : 4/0 CU
- 224 : 4/0 PECN CU
- 225 : 4/0 PILC
- 226 : 4/0 PILC-PEJ CU
- 227 : 4/0 THW
- 228 : 4/0 TREE
- 229 : 4/0 WP
- 230 : 4/0 WPAL
- 231 : 4/0 WPCU
- 232 : 400K B.STRD
- 233 : 500 AL
- 234 : 500 CU
- 235 : 500 EPR-PEJ CU
- 236 : 500 PECN
- 237 : 500 PECN CU
- 238 : 500 PECN-PEJ CU
- 239 : 500 PILC
- 240 : 500 PILC-NJ
- 241 : 500 PILC-PEJ
- 242 : 500 PILC-PEJ CU
- 243 : 500 THW
- 244 : 500 XLPECN-PEJ
- 245 : 500K B.STRD
- 246 : 636 AAC
- 247 : 636 ACAR
- 248 : 636 ACSR
- 249 : 636 ACSRTW
- 250 : 636 AL
- 251 : 636 B.STRD
- 252 : 636 CU
- 253 : 750 AAAC
- 254 : 750 AAC
- 255 : 750 ACSR
- 256 : 750 AL
- 257 : 750 AWA

        - 258 : 750 B.STRD
        - 259 : 750 CU
        - 260 : 750 EPR-PEJ
        - 261 : 750 EPR-PEJ CU
        - 262 : 750 PECN-PEJ AL
        - 263 : 750 XLPE AL
        - 264 : 750 XLPECN-PEJ
        - 265 : 750 XLPECN-PEJ AL
        - 266 : 750 XLPE-PEJ AL
        - 267 : 795 AAAC
        - 268 : 795 AAC
        - 269 : 795 ACSR
        - 270 : 795 AL
    - Electric_Medium_Voltage_KVAR
        - 0 : Unknown
        - 5000 : 5 kVAR
        - 10000 : 10 kVAR
        - 20000 : 20 kVAR
        - 30000 : 30 kVAR
        - 50000 : 50 kVAR
        - 100000 : 100 kVAR
        - 150000 : 150 kVAR
        - 200000 : 200 kVAR
        - 300000 : 300 kVAR
        - 400000 : 400 kVAR
        - 500000 : 500 kVAR
        - 600000 : 600 kVAR
    - Electric_Motor_Assistance_Type
        - 0 : Unknown
        - 1 : Auto Transformer
        - 2 : Capacitor
        - 3 : Inductor
        - 4 : Inductor & Resistor
        - 5 : Resistor
        - 6 : Star-Delta
    - Electric_Motor_Type
        - 0 : Unknown
        - 1 : Induction

        - 2 : Synchronous
- Electric_PF_Control_Type
    - 0 : Unknown
    - 1 : Current
    - 2 : Manual
    - 3 : Power Factor
    - 4 : VAR
    - 5 : Tempature
    - 6 : Time
    - 7 : Reactive Current
- Electric_Power_Factor_Correcting_Type
    - 0 : Unknown
    - 1 : Shunt
    - 2 : Series
- Electric_RTU_Data_Type
    - 0 : Unknown
    - 1 : Analog
    - 2 : Digital
- Electric_Structure_Boundary_Switchgear_Material
    - 0 : Unknown
    - 1 : Stainless Steel
    - 4 : Fiberglass
    - 6 : Steel
    - 10 : Plastic
    - 15 : Nickel
    - 16 : Brushed Nickel
    - 17 : Brushed Stainless Steel
    - 18 : Coated Steel
    - 20 : Other
- Electric_Structure_Pole_Class_High_Voltage
    - 0 : Unknown
    - 1 : Class 1
    - 2 : Class 2
    - 101 : Class H1
    - 102 : Class H2
    - 103 : Class H3
    - 104 : Class H4
    - 105 : Class H5
- Electric_Structure_Pole_Class_Low_Voltage

        - 0 : Unknown
        - 6 : Class 6
        - 7 : Class 7
        - 8 : Class 8
        - 9 : Class 9
        - 10 : Class 10
- Electric_Switch_Breaking_Medium
    - 0 : Unknown
    - 1 : Air
    - 2 : CO2
    - 3 : Gas
    - 4 : Hybrid
    - 5 : Oil
    - 6 : Vaccum
- Electric_Trip_Type
    - 0 : Unknown
    - 1 : Trip Only
    - 2 : Trip and Lockout
- Electric_Winding_Ratio
    - 0 : Unknown
    - 50 : 50:5
    - 60 : 60:5
    - 75 : 75:5
    - 80 : 80:5
    - 100 : 100:5
    - 125 : 125:5
    - 150 : 150:5
    - 200 : 200:5
    - 250 : 250:5
    - 300 : 300:5
    - 400 : 400:5
    - 500 : 500:5
    - 600 : 600:5
    - 800 : 800:5
    - 1000 : 1000:5
    - 1200 : 1200:5
    - 1500 : 1500:5
    - 1600 : 1600:5

        - 2000 : 2000:5
        - 3000 : 3000:5
        - 4000 : 4000:5
        - 6000 : 6000:5
        - 8000 : 8000:5
    - Structure_Cabinet_Design_Type
        - 0 : Unknown
        - 1 : Indoor
        - 2 : Water Proof
        - 3 : Water Tight
    - Structure_Junction_Communications_Pole_Height
        - 0 : Unknown
        - 20: 20 Feet
        - 25: 25 Feet
        - 30: 30 Feet
        - 35: 35 Feet
        - 40: 40 Feet
        - 45: 45 Feet
        - 50: 50 Feet
        - 55: 55 Feet
        - 60: 60 Feet
        - 65: 65 Feet
        - 70: 70 Feet
        - 75: 75 Feet
        - 80: 80 Feet
        - 85: 85 Feet
        - 90: 90 Feet
        - 95: 95 Feet
    - Structure_Wall_Position
        - 0 : Unknown
        - 1 : North
        - 2 : Northeast
        - 3 : East
        - 4 : Southeast
        - 5 : South
        - 6 : Southwest
        - 7 : West
        - 8 : Northwest

- Wire_Duct_Diameter_mm
  - 0 : Unknown
  - 20: 20 mm
  - 25: 25 mm
  - 32: 32 mm
  - 38: 38 mm
  - 40: 40 mm
  - 50: 50 mm
  - 63: 63 mm
  - 75: 75 mm
  - 90: 90 mm
  - 94: 94 mm
  - 100: 100 mm
  - 105: 105 mm
  - 117: 117 mm
  - 125: 125 mm
  - 137: 137 mm
  - 150: 150 mm
  - 160: 160 mm
  - 225: 225 mm
- Wire_Structure_Guy_Diameter_in
  - 0 : Unknown
  - 6.35 : 1/4"
  - 7.9629 : 5/16"
  - 9.525 : 3/8"
  - 11.1125 : 7/16"
  - 12.7 : 1/2"
  - 14.2875 : 9/16"
  - 25.4 : 1"
    - Wire_Structure_Junction_Combined_Material
      - 0 : Unknown
      - 1 : Stainless Steel
      - 3 : Composite
      - 4 : Fiberglass
      - 6 : Steel
      - 7 : Wood
      - 8 : Poured Concrete
      - 9 : Precast Concrete
      - 10 : Plastic
      - 11 : Cast Iron

        - 20 : Other
- Wire_Structure_Junction_Comm_Pole_Material
    - 0 : Unknown
    - 3 : Composite
    - 4 : Fiberglass
    - 6 : Steel
    - 7 : Wood
    - 9 : Precast Concrete
    - 20 : Other
- Wire_Structure_Marker_Material
    - 0 : Unknown
    - 1 : Stainless Steel
    - 3 : Composite
    - 4 : Fiberglass
    - 6 : Steel
    - 7 : Wood
    - 8 : Poured Concrete
    - 9 : Precast Concrete
    - 10 : Plastic
- Wire_Structure_Junction_Manhole_Type
    - 0 : Unknown
    - 61 : Deep
    - 62 : Normal
    - 63 : Shallow
- Wire_Structure_Junction_Pole_Class_Combined
    - 0 : Unknown
    - 1 : Class 1
    - 2 : Class 2
    - 3 : Class 3
    - 4 : Class 4
    - 5 : Class 5
    - 6 : Class 6
    - 7 : Class 7
    - 8 : Class 8
    - 9 : Class 9
    - 10 : Class 10
    - 201 : Class H1
    - 202 : Class H2
    - 203 : Class H3

        - 204 : Class H4
        - 205 : Class H5
- Electric_Buck_Boost_Rate
    - Range -10 to 10
- Electric_Device_Resistance_Range
    - Range 0 to 999999
- Electric_High_Voltage_Discharge_Range
    - Range 100000 to 750000
- Electric_High_Voltage_Impluse
    - Range 10 to 10000
- Electric_High_Voltage_Maximum_Current
    - Range 0 to 15000
- Electric_High_Voltage_Service_Load
    - Range 0 to 500000
- Electric_Hour
    - Range 0 to 24
- Electric_Impedance_Range
    - Range 0 to 5000
- Electric_Load_Tap_Bandwidth
    - Range 0 to 10
- Electric_Low_Voltage_Load_Loss
    - Range 0 to 100
- Electric_Low_Voltage_Load_Watts
    - Range 0 to 10000
- Electric_Maximum_Voltage_Change
    - Range 0 to 10000
- Electric_Medium_Voltage_Discharge_Voltage
    - Range 8000 to 118000
- Electric_Medium_Voltage_Load_Loss
    - Range 0 to 1000
- Electric_Medium_Voltage_Load_Watts
    - Range 0 to 100000
- Electric_Ohms_per_KM
    - Range 0 to 999999
- Electric_Phase_Angle_Offset_Range
    - Range 0 to 180
- Electric_Phase_Shift
    - Range -30 to 30
- Electric_Phase_Whole_Degrees
    - Range -180 to 180
- Electric_Transformer_Colling

            - 0 : Unknown
            - 1 : Air Natural (AN)
            - 2 : Air Blast
            - 3 : Oil Natural/Air Natural (ONAN)
            - 4 : Oil Natural/Air Forced (ONAF)
            - 5 : Oil Forced/Air Forced (OFAF)
            - 6 : Oil Forced/Water Forced (OFWF)
        - Electric_Whole_Degrees_Positive
            - Range 0 to 180
        - Electric_Power_Factor_Range
            - Range 0 to 1
        - Electric_Short_Percent_Range
            - Range 0 to 100
        - Electric_Tap_Change_Percent
            - Range -15 to 15
        - Electric_Tap_MaxiumChange
            - Range 0 to 20
        - Electric_Taps_Range
            - Range 0 to 32
        - Electric_Trip_Count
            - Range 0 to 5
        - Electric_Trip_Delay_Range
            - Range 0 to 10
        - Electric_Voltage_Offset
            - Range 0 to 1000
        - Electric_Voltage_Bandwidth
            - Range -5000 to 5000
        - Structure_Wall_Count
            - Range 3 to 15
        - Structure_Pole_Depth
            - Range 0 to 20
        - Wire_Anchor_Guy_Depth
            - Range 0 to 20
- Changed
    - Electric_Combined_Nominal_Voltage_LL
        - Added
            - 253 : 253 V
            - 528 : 528 V
            - 15000 : 15 kV
            - 120000 : 120 kV
            - 145000 : 145 kV

        - 362000 : 362 kV
        - 800000 : 800 kV
- Electric_Crossarm_Material
    - Removed
        - 1 : Other
        - 2 : Fir
        - 3 : Treated-SYP
    - Added
        - 7 : Wood
        - 20 : Other
- Electric_Device_Status
    - Removed
        - 2 : Closed
        - 4 : Grounded
- Electric_Distribution_Phase_Attribution
    - Changed
        - 0 : DeEnergized to 1 : De-Energized
- Electric_Equipment_Manufacturer
    - Changed
        - 50 : Seimans to 50 : Siemans
- Electric_Ground_Material
    - Changed
        - 1 : Aluminum to 15 : Aluminum
        - 2 : Copper to 25 Copper
- Electric_Grounding_Type
    - Changed
        - 1 : Delta to 1 : Grouded Wye
    - Added
        - 3 : Delta
        - 4 : Grounded Delta
- Electric_High_Voltage_Generation_Watts
    - Added
        - 540 : 540 MW
        - 1540 : 1540 MW
- Electric_High_Voltage_Maximum_Interrupting_Current
    - Added
        - 31500 : 31.5 kA
        - 40000 : 40 kA
        - 60000 : 60 kA
        - 80000 : 80 kA
        - 90000 : 90 kA

- Electric_Low_Nominal_Voltage_L_G
  - Renamed to Electric_Low_Nominal_Voltage_LG
- Electric_Medium_Nominal_Voltage_L_G
  - Renamed to Electric_Medium_Nominal_Voltage_LG
- Electric_Medium_Voltage_Fuse_Interrupting_Amps
  - Added
    - 250 : 250 amp
    - 500 : 500 amp
    - 600 : 600 amp
- Electric_Medium_Voltage_Transformer_VA
  - Added
    - 5000000 : 5000 kVA
    - 7000000 : 7000 kVA
    - 7500000 : 7500 kVA
- Electric_Neutral_Material
  - Removed
    - 1 : All Aluminum Conductor
    - 2 : All Aluminum Steel Reinforced
    - 3 : Aluminum
    - 4 : Copper
    - 5 : Copper Weld
    - 6 : Hard Drawn Copper
    - 7 : Soft Drawn Copper
    - 8 : Stranded Copper
    - 9 : Steel
  - Added
    - 6 : Steel
    - 15 : Aluminum
    - 16 : All Aluminum Conductor
    - 17 : All Aluminum Steel Reinforced
    - 25 : Copper
    - 26 : Hard Drawn Copper
    - 27 : Soft Drawn Copper
    - 28 : Stranded Copper
    - 29 : Copper Weld
- Electric_StaticWire_Material
  - Renamed to Electric_StaticWire_Type
- Electric_Structure_Pole_Class_Medium_Voltage
  - Removed codes
    - 102 : Class H2

        - 103 : Class H3
        - 104 : Class H4
        - 105 : Class H5
- Electric_Duct_Diameter
    - Renamed to Wire_Duct_Diameter
- Electric_Pole_Height_Combined
    - Renamed to Wire_Pole_Height_Combined
- Electric_Structure_Junction_Anchor_Guy_Size
    - Renamed to Wire_Structure_Junction_Anchor_Guy_Size
- Electric_Structure_Junction_Anchor_Guy_Type
    - Renamed to Wire_Structure_Junction_Anchor_Guy_Type
- Electric_Structure_Junction_Cabinet_Material
  -Added
  - 4 : Fiberglass
  - 10: Plastic
  - 15: Nickel
  - 16: Brushed Nickel
  - 17: Brushed Stainless Steel
  - 18: Coated Steel
- Electric_Structure_Junction_Guy_Material
    - Renamed to Wire_Structure_Junction_Guy_Material
- Electric_Structure_Junction_Handhole_Material
    - Renamed to Wire_Structure_Junction_Handhole_Material
- Electric_Structure_Junction_Handhole_Size
    - Renamed to Wire_Structure_Junction_Handhole_Size
- Electric_Structure_Junction_Junction_Box_Material
    - Renamed to Wire_Structure_Junction_Junction_Box_Material
- Electric_Structure_Junction_Junction_Box_Size
    - Renamed to Wire_Structure_Junction_Junction_Box_Size
- Electric_Structure_Junction_Marker_Material
    - Renamed to Wire_Structure_Junction_Marker_Material
- Electric_Structure_Junction_Pedestal_Material
    - Renamed to Wire_Structure_Junction_Pedestal_Material
- Electric_Structure_Junction_Pole_Treatment
    - Renamed to Wire_Structure_Junction_Pole_Treatment
- Electric_Structure_Junction_Support_Pole_Material
    - Renamed to Wire_Structure_Junction_Support_Pole_Material
- Electric_Structure_Junction_Vault_Cover_Material
    - Renamed to Wire_Structure_Junction_Vault_Cover_Material
- Electric_Structure_Junction_Vault_Size
    - Renamed to Wire_Structure_Junction_Vault_Size
- Electric_Structure_Line_Aerial_Support_Material

        - Renamed to Wire_Structure_Line_Aerial_Support_Material
- Electric_Structure_Line_Duct_Bank_Material
    - Renamed to Wire_Structure_Line_Duct_Bank_Material
- Electric_Structure_Line_Duct_Material
    - Renamed to Wire_Structure_Line_Duct_Material
- Electric_Structure_Line_Trench_Material
    - Renamed to Wire_Structure_Line_Trench_Material
- Electric_Structure_Manufacturer
    - Renamed to Wire_Structure_Manufacturer
- Electric_Transmission_Phase_Attribution
    - Changed
        - 0 : DeEnergized to 0 : De-Energized
- Electric_Wire_Metal_Material
    - Changed
        - 1 : Aluminum to 15 : Aluminum
        - 2 : Copper to 25 : Copper
        - 3 : Steel to 6 : Steel
- Electric_Anchor_Guy_Depth
    - Renamed to Wire_Anchor_Guy_Depth
- Electric_Duct_Bank_Width
    - Renamed to Wire_Duct_Bank_Width
- Electric_Pedestal_Depth
    - Renamed to Wire_Pedestal_Depth
- Electric_Support_Pole_Depth
    - Renamed to Wire_Support_Pole_Depth
- Electric_Trench_Width
    - Renamed to Wire_Trench_Width
- Electric_Vault_Depth
    - Renamed to Wire_Vault_Depth
- Structure_Junction_Electric_Manhole
    - Renamed to Structure_Junction_Wire_Vault_Access
- Structure_Junction_Electric_Guy
    - Renamed to Structure_Junction_Wire_Guy
- Structure_Junction_Electric_Handhole
    - Renamed to Structure_Junction_Wire_Handhole
- Structure_Junction_Electric_Junction_Box
    - Renamed to Structure_Junction_Wire_Junction_Box
- Structure_Junction_Electric_Pedestal
    - Renamed to Structure_Junction_Wire_Pedestal
- Structure_Junction_Electric_Support_Pole
    - Renamed to Structure_Junction_Wire_Support_Pole

        - Structure_Junction_Electric_Vault
            - Renamed to Structure_Junction_Wire_Vault
        - Structure_Line_Electric_Aerial_Support
            - Renamed to Structure_Line_Wire_Aerial_Support
        - Structure_Line_Electric_Duct_Bank
            - Renamed to Structure_Line_Wire_Aerial_Duct_Bank
        - Structure_Line_Electric_Trench
            - Renamed to Structure_Line_Wire_Trench
    - Removed
        - Electric_Device_Gang_Operated
        - Electric_Device_State_Status_Combined
        - Electric_High_Voltage_Arrester_Discharge
        - Electric_Light_Watts
        - Electric_Line_Length
        - Electric_Low_Voltage_Generate_Watts
        - Electric_Low_Voltage_Service_Load
        - Electric_Low_Voltage_VAR
        - Electric_Medium_Voltage_Arrester_Discharge_Voltage
        - Electric_Medium_Voltage_Busbar_Type
        - Electric_Medium_Voltage_Conductor_Type
        - Electric_Medium_Voltage_Connector_Type
        - Electric_Medium_Voltage_Service_Load
        - Electric_Ohms_per_KM
        - Electric_Phase_Change
        - Electric_Regulator_Operation_Type
        - Electric_Secondary_Phase_Substitution
        - Electric_Structure_Duct_Count_Range
        - Structure_Guy_Diameter_in
        - Structure_Junction_Vault_Size
        - Electric_System_Grounding
        - Structure_Line_Electric_Duct
    - Added with the code
        - CODE: VALUE
          #Attribute Rules
- ElectricAssembly
    - Removed
        - ID_Assembly1
        - ID_Assembly2
        - ID_Assembly3

        - ID_Assembly4
        - ID_Assembly5
        - ID_Assembly6
        - ID_Assembly7
        - ID_Assembly8
        - ID_Assembly9
        - ID_Assembly10
        - ID_Assembly11
        - ID_Assembly12
        - ID_Assembly13
        - ID_Assembly14
        - ID_Assembly15
        - ID_Assembly16
        - ID_Assembly17
        - ID_Assembly18
        - ID_Assembly19
        - ID_Assembly20
    - Added
        - Electric_Assembly_GenerateIDs
- ElectricDevice
    - Removed
        - ID_Device1
        - ID_Device2
        - ID_Device3
        - ID_Device4
        - ID_Device5
        - ID_Device6
        - ID_Device7
        - ID_Device8
        - ID_Device9
        - ID_Device10
        - ID_Device11
        - ID_Device12
        - ID_Device13
        - ID_Device14
        - ID_Device15
        - ID_Device16
        - ID_Device17

        - ID_Device18
        - ID_Device19
        - ID_Device20
        - ID_Device21
        - ID_Device22
        - ID_Device23
        - ID_Device24
        - ID_Device25
        - ID_Device26
        - ID_Device27
        - ID_Device28
        - ID_Device29
        - ID_Device30
        - ID_Device31
        - ID_Device32
        - ID_Device33
        - ID_Device34
        - ID_Device35
        - ID_Device36
        - ID_Device37
        - ID_Device38
    - Added
        - ElectricDevice_GenerateIDs
        - ElectricDevice-Transformer kVA
        - ElectricDevice-Validate Voltage
- ElectricJunction
    - Removed
        - ID_Junction1
        - ID_Junction2
        - ID_Junction3
        - ID_Junction4
        - ID_Junction5
        - ID_Junction6
        - ID_Junction7
        - ID_Junction8
        - ID_Junction9
    - Added
        - ElectricJunction_GenerateIDs
        - Tap LifecycleStatus

- ElectricLine
  - Removed
    - ID_Line1
    - ID_Line2
    - ID_Line3
    - ID_Line4
    - ID_Line5
    - ID_Line6
    - ID_Line7
    - ID_Line8
    - ID_Line10
    - ID_Line11
  - Added
    - ElectricLine_GenerateIDs
    - ElectricLine-Validate Voltage
    - Line_MeasuredLength From Shape
    - Validate Line Voltage
- StructureEdgeObject
  - Added
    - StructureEdgeObject_DuctAvialble From Content
    - StructureEdgeObject_Execute Insert Action
- StructureBoundary
  - Removed
    - ID_StructureBoundary_101
    - ID_StructureBoundary_102
    - ID_StructureBoundary_103
    - ID_StructureBoundary_104
    - ID_StructureBoundary_105
    - ID_StructureBoundary_106
    - ID_StructureBoundary_107
    - ID_StructureBoundary_108
  - Added
    - StructureBoundary_GenerateIDs
- StructureJunction
  - Removed
    - ID_StructureJunction101
    - ID_StructureJunction102
    - ID_StructureJunction103
    - ID_StructureJunction104
    - ID_StructureJunction105

        - ID_StructureJunction106
        - ID_StructureJunction107
        - ID_StructureJunction108
        - ID_StructureJunction110
        - ID_StructureJunction112
        - ID_StructureJunction120
        - ID_StructureJunction121
        - ID_StructureJunction122
        - ID_StructureJunction123
        - ID_StructureJunction124
    - Added
        - StructureJunction_GenerateIDs
- StructureLine
    - Removed
        - ID_StructureLine_101
        - ID_StructureLine_102
        - ID_StructureLine_103
        - ID_StructureLine_104
        - ID_StructureLine_105
        - ID_StructureLine_106
        - ID_StructureLine_107
    - Added
        - StructureLine_Contain Structure Line in Structure
        - StructureLine_Create Ducts in Duct Bank
        - StructureLine_Distance From Container
        - STructureLine_Measured Length From Shape
        - StructureLine_GenerateIDs