## New Functions

## Existing Bugs

1. “.” in node names. We have to change it to “\_”
2. Coordinates do not match node information

Problems in converting two-feeder network

1. Cannot directly convert two feeders with separate power sources
   1. create one model for every feeder in parsing section
   2. create a dictionary to store the model of each feeder
   3. store sectionIDs for each feeder
   4. in parsing other segments, get the model by feeder name
2. Cannot directly separate different feeders
   1. Change the order of parsing lines (transformer/regulator) and parsing nodes
   2. When parsing lines, store the node-feeder mapping for the from element and to element
3. Lines with duplicate names
   1. For different items in the same section, rename them to avoid duplicate names

Problems in converting large-scale network with substation

1. Only parse head nodes for feeders not substation
   1. We need headnodes information for both, to get sub-feeder, headnode-sub, headnode-feeder information
2. Cannot map feeders to substation
3. Cannot directly map sources to each feeder
   1. Get structure id for each headnode
   2. Create substation-feeders mapping
   3. Create feeder-headnode mapping
4. Substation internal connection complex and not needed
5. Same node appears in multiple feeders (TIEPOINT)
   1. Create feeder list for each node, store different feeder names for each node
   2. For each feeder, create the node
6. Some feeders with source but some feeders with source equivalent
   1. Iterate both sources and source equivalent. Skip if already assigned
7. Source with sub headnodes, source equivalent with both feeder headnode and sub headnode
8. Create source for each feeder
   1. For each source node, get the substation name, and for all feeders in this substation, create a source
   2. Do not create source for substation
9. Modifier
   1. Modify only feeders not substation
10. Source information missing: no winter/summer/default for 13582