Summary of EPRI Test Circuits

Three models of actual electric power distribution circuits are made public in OpenDSS format. A summary of each, labeled Ckt5, Ckt7, and Ckt24, is given below.

| Circuit Alias | Ckt5 | Ckt7 | Ckt24 |
|-------------------------------|-------|-------|-------|
| System voltage (kV) | 12.47 | 12.5 | 34.5 |
| Number of customers | 1379 | 5694 | 3885 |
| Service xfmr connected kVA | 16310 | 19320 | 69373 |
| Total feeder kvar | 1950 | 2400 | 3300 |
| Subtransmission Voltage (kV) | 115 | 115 | 230 |
| 3-Ph SCC at Sub Sec. (MVA) | 114 | 475 | 422 |
| Primary circuit miles total | 48 | 8 | 74 |
| Percent residential by load | 96 | 39 | 87 |
| No. of feeders on the Sub bus | 1 | 14 | 2 |

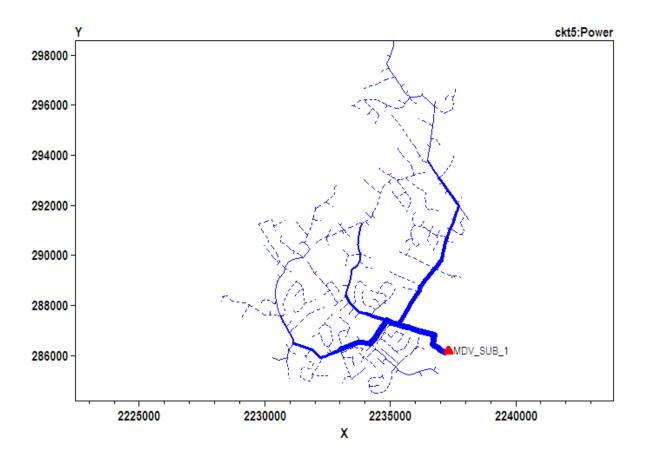
The models are contained in separate folders under the same names.

Researchers are encouraged to use these models to investigate Smart Grid issues.

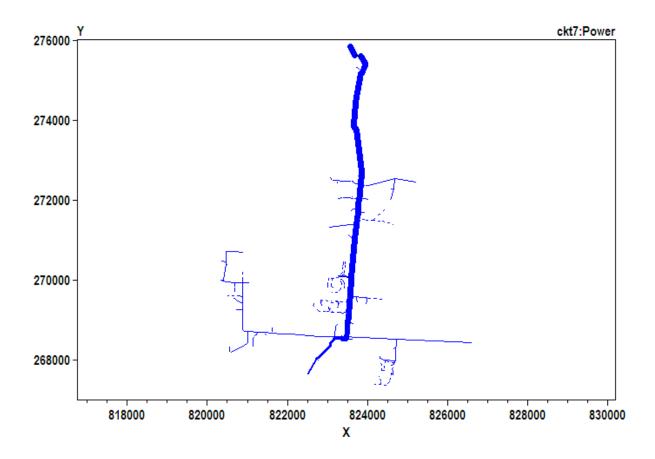
Diagrams of each circuit with line thicknesses drawn proportional to power flow are provided on the following pages.

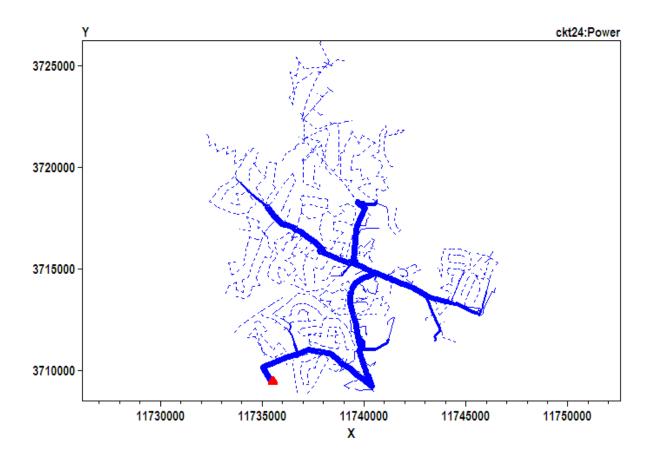
To begin, open the file in each circuit folder beginning with "Run_..." in the OpenDSS program. Then select the line(s) you wish to execute from the file and right-click. This will give you several options, the first of which is to execute the selected lines.

If you get a message that the Master file cannot be found, right-click again and select "Change to this directory". Alternatively, you may edit the Run file to put in the full path name of the master file. This will automatically change the default OpenDSS data directory when it is executed.



Ckt5





Ckt24