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11/05/2022

Ee101 – Term project 3

All Experiments and Explanations

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ALL EXPERIMENTS AND EXPLANATIONS

Experiment 1 – PAI – ROOK, PETE – ROOK

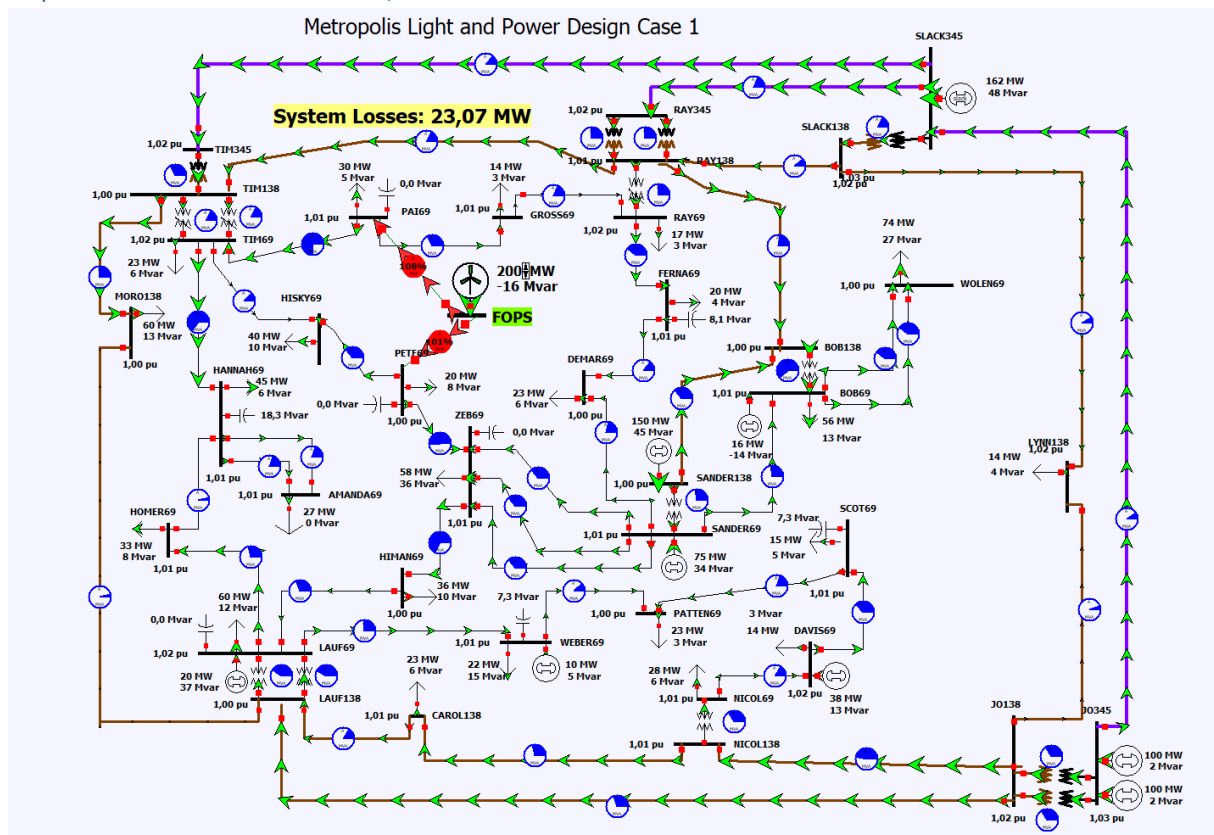


Figure 1. PAI and PETE connected to POPS with ROOK conductors.

As shown in Figure 1. PAI and PETE stations are connected with ROOK conductors, but these ROOK conductors are not enough to carry that electric and they are overloading, that means these conductors are going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 2 PETE – ROOK, PAI – CROW.

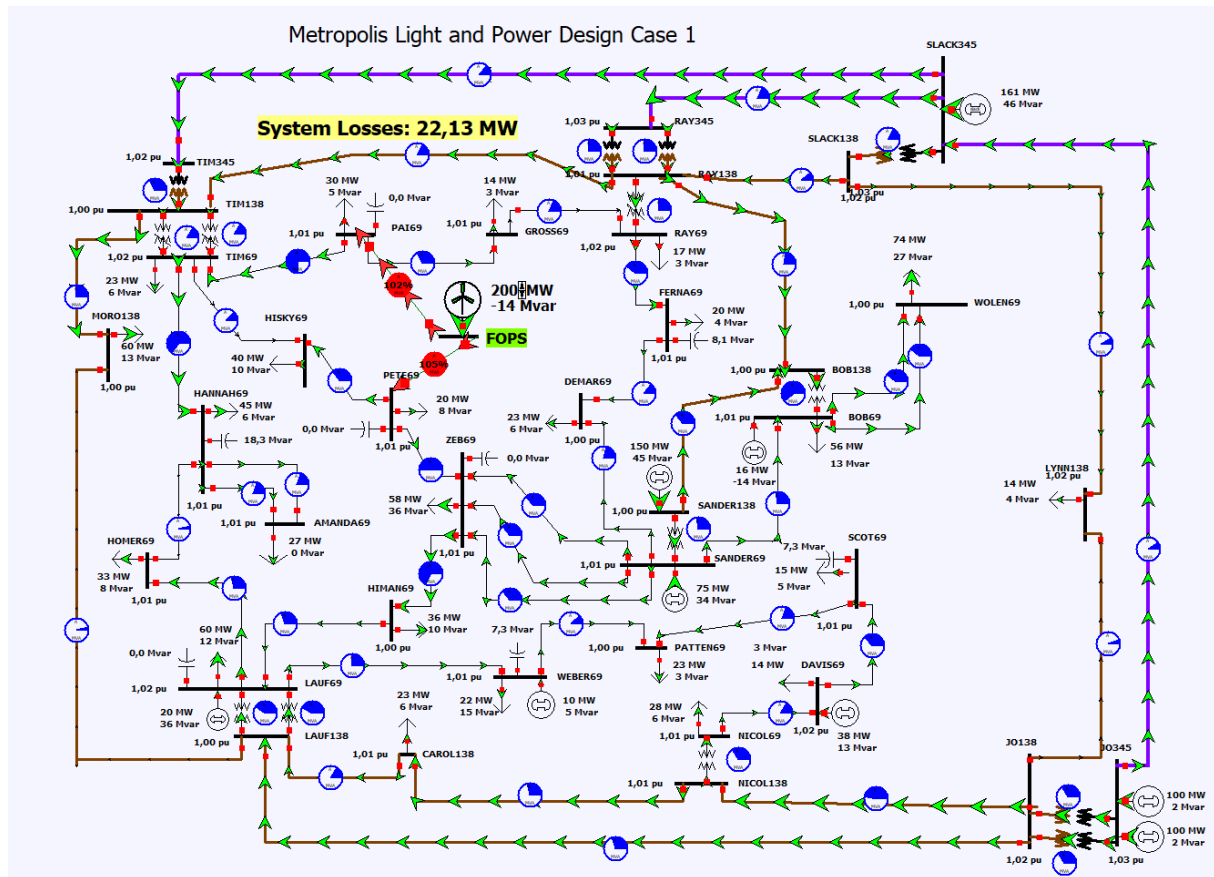
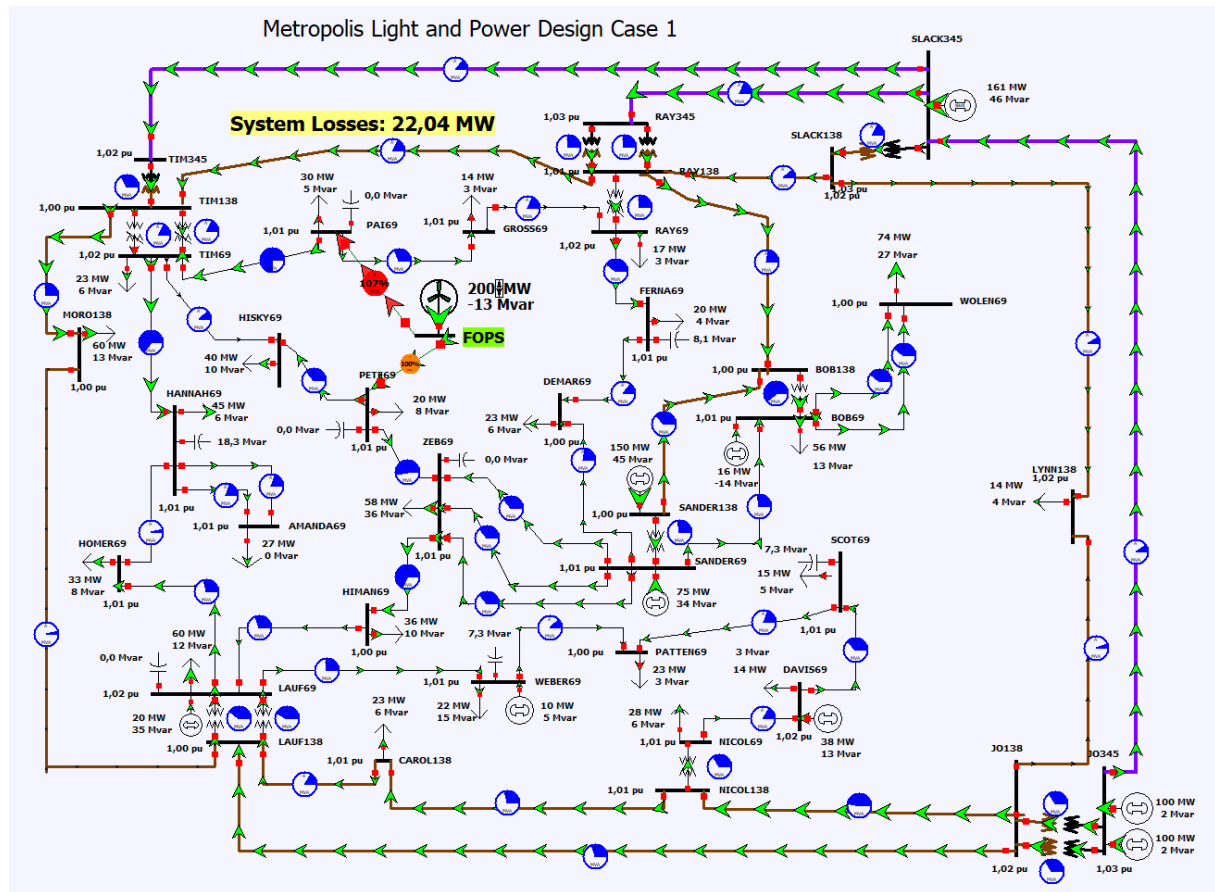


Figure 2. PETE connected with ROOK and PAI connected with CROW to POPS.

As shown in Figure 2. PETE is connected to POPS with ROOK conductor and PAI is connected to POPS with CROW conductor, but ROOK conductor which connected to PETE and CROW conductor which connected to PAI are not enough to carry that electric and they are overloading, that means these conductors are going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

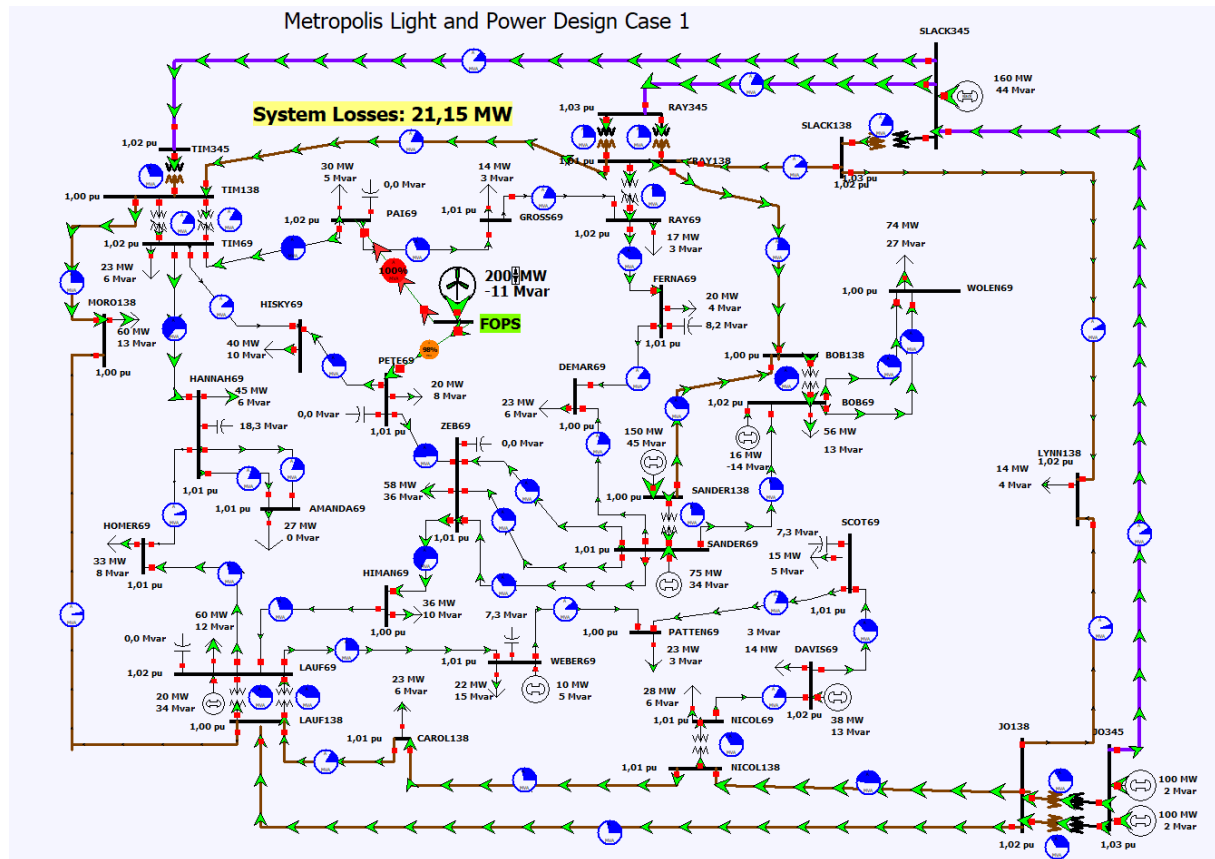
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Experiment 4 PETE – CROW, PAI - ROOK



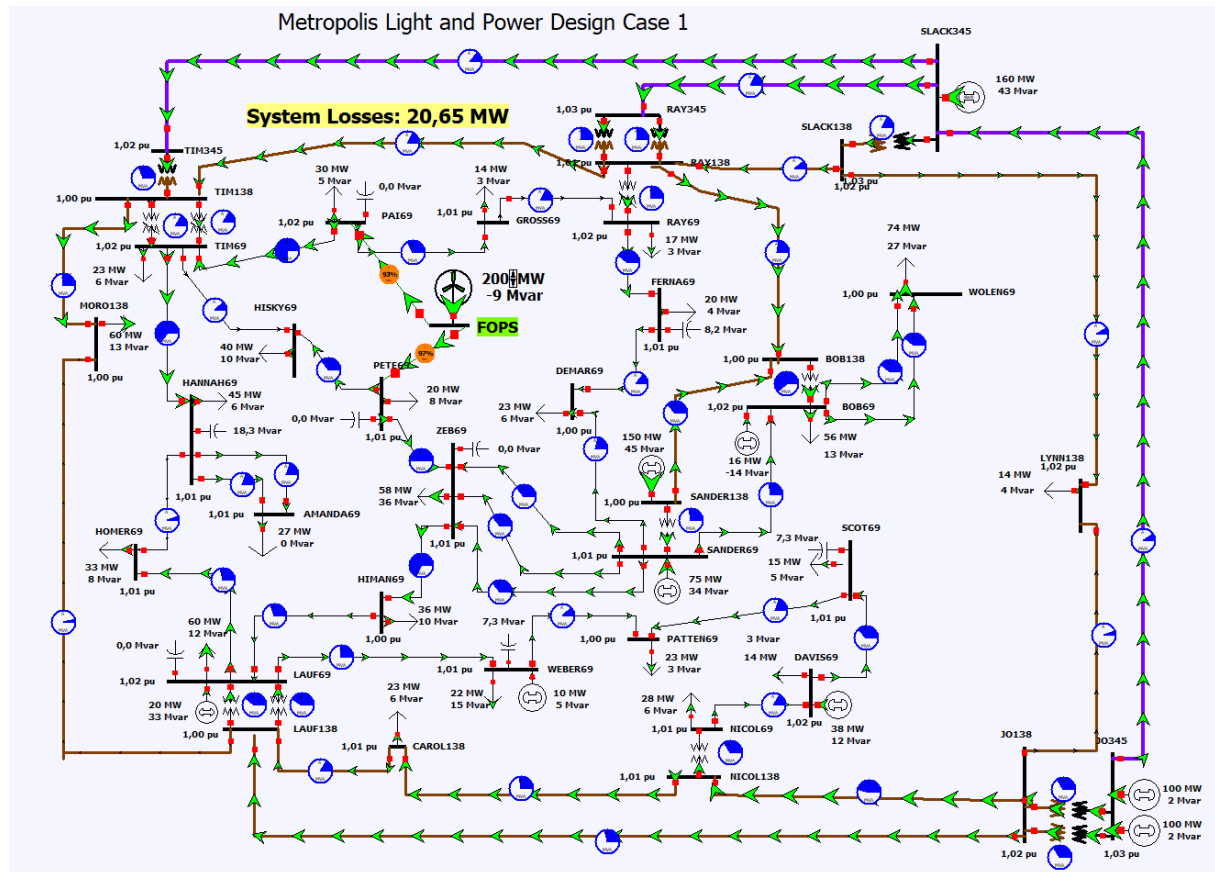
As shown in Figure 4. PETE is connected to POPS with CROW conductor and PAI is connected to POPS with ROOK conductor, but CROW conductor which connected to PETE and ROOK conductor which connected to PAI are not enough to carry that electric and they are overloading, that means these conductors are going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 5 PETE – CROW, PAI - CROW

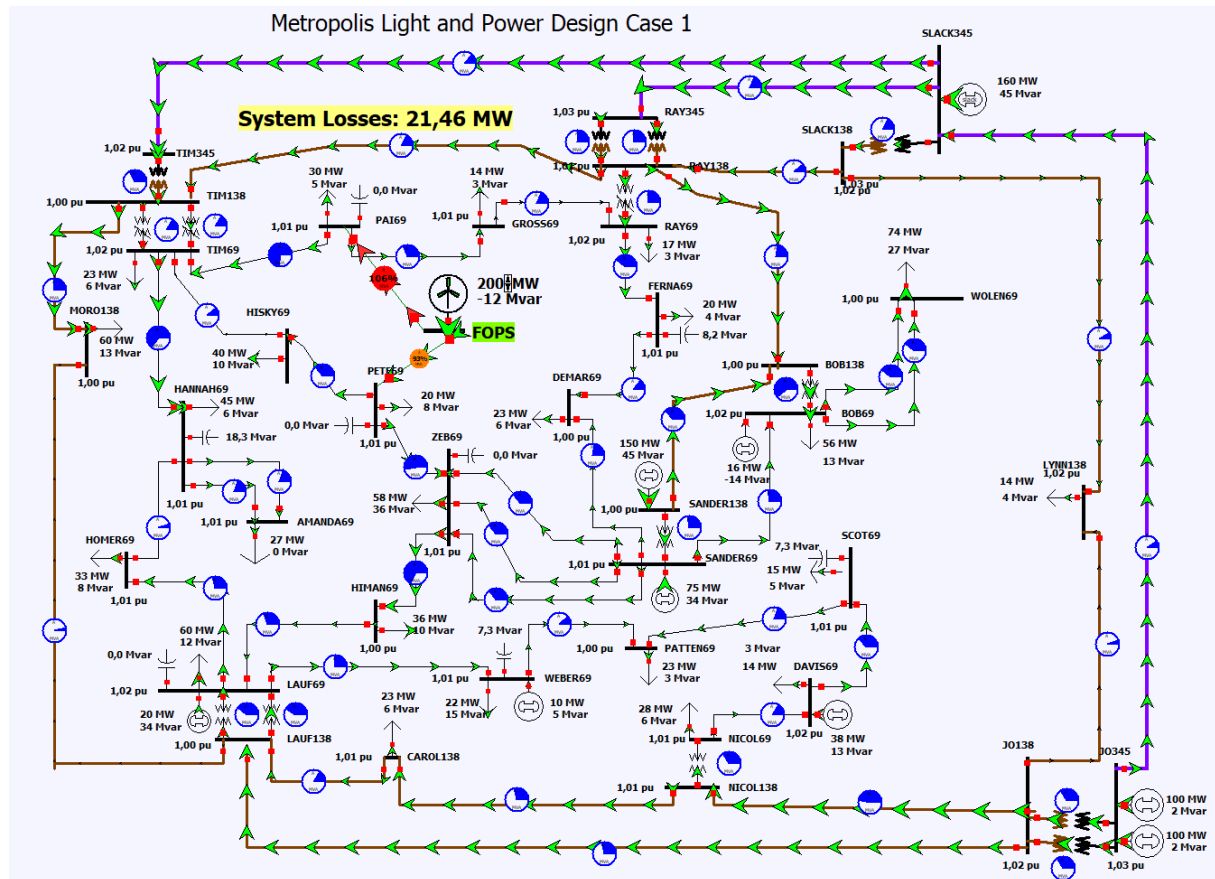


As shown in Figure 5. PETE is connected to POPS with CROW conductor and PAI is connected to POPS with CROW conductor, even though CROW conductor which connected to PETE is working on the limits, CROW conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 6 PETE – CROW, PAI – CONDOR (WORKING)

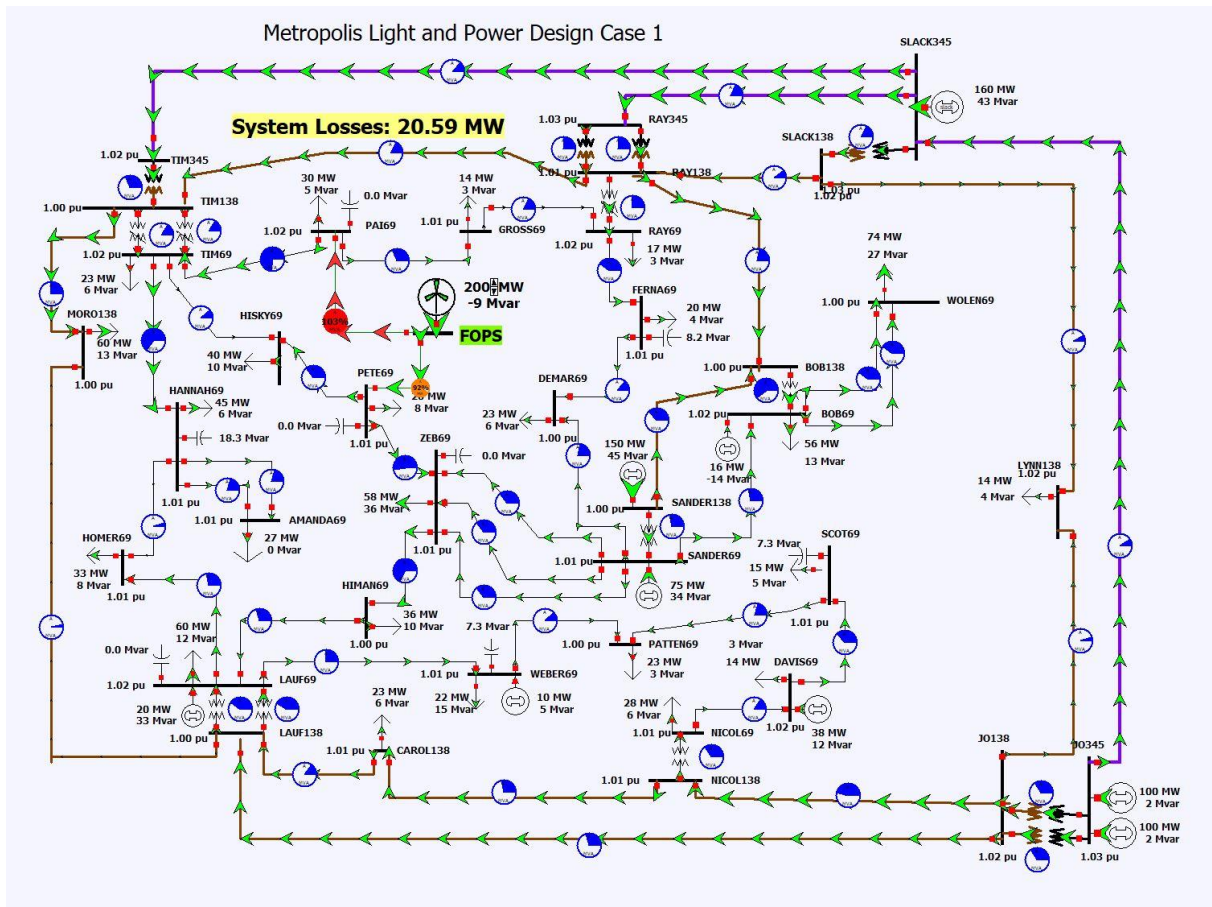


Experiment 7 PETE – CONDOR, PAI - ROOK



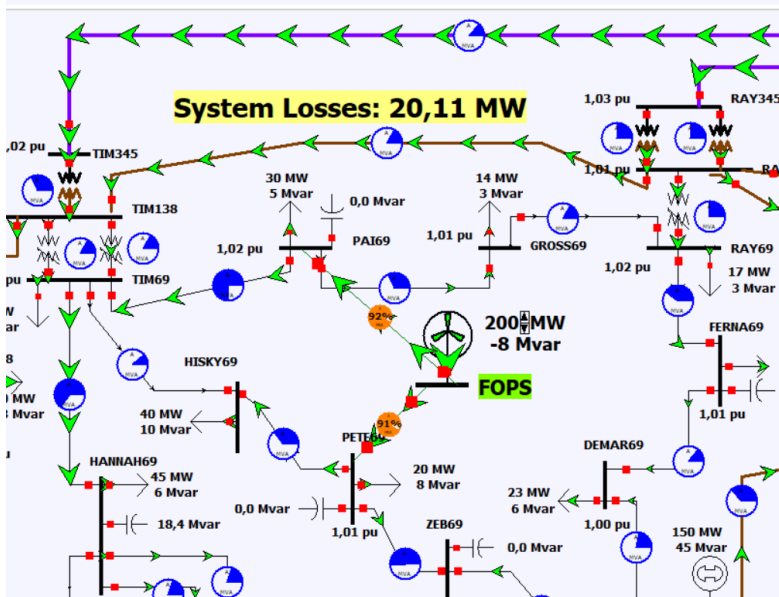
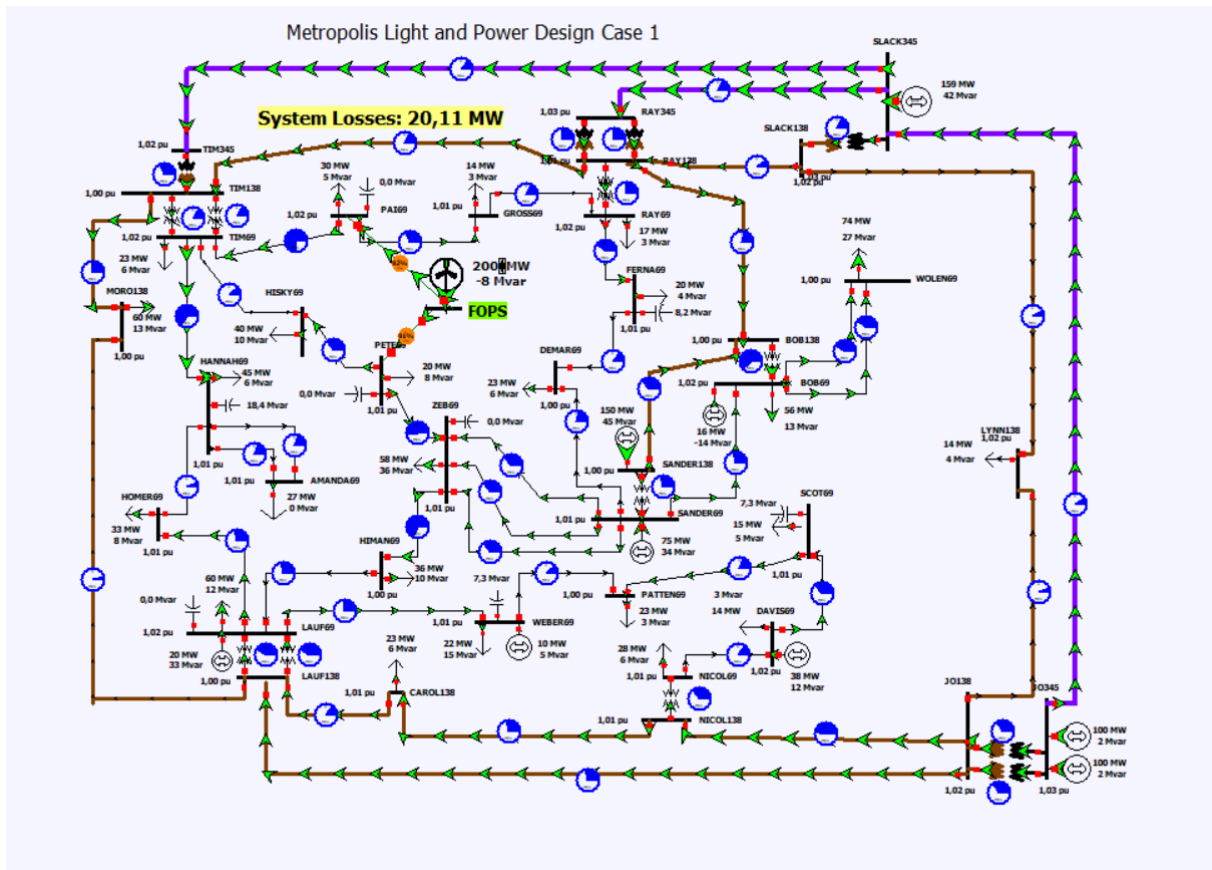
As shown in Figure 7. PETE is connected to POPS with CONDOR conductor and PAI is connected to POPS with ROOK conductor, even though CONDOR conductor which connected to PETE is working on the limits, ROOK conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 8 PETE – CONDOR, PAI - CROW



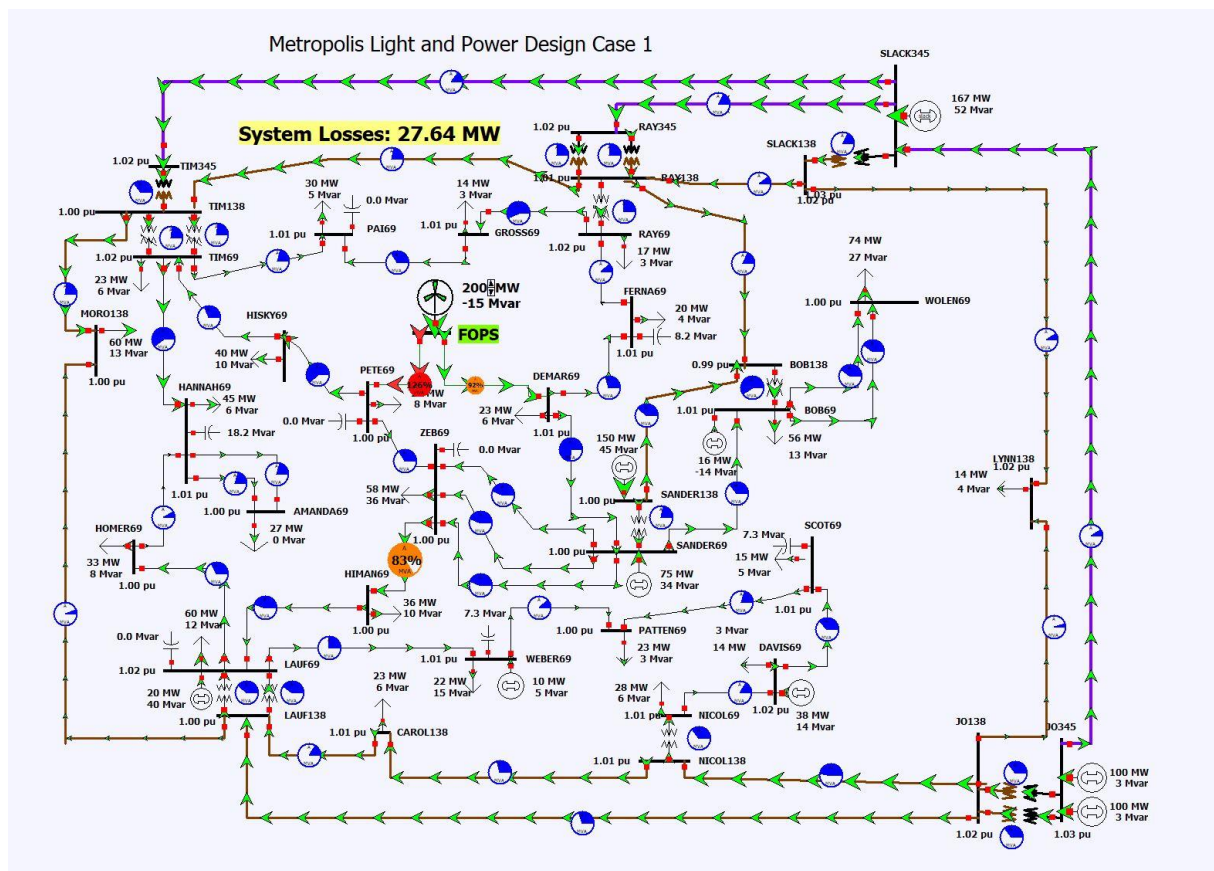
As shown in Figure 8. PETE is connected to POPS with CONDOR conductor and PAI is connected to POPS with CROW conductor, even though CONDOR conductor which connected to PETE is working on the limits, CROW conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 9 PETE – CONDOR, PAI – CONDOR (WORKING)



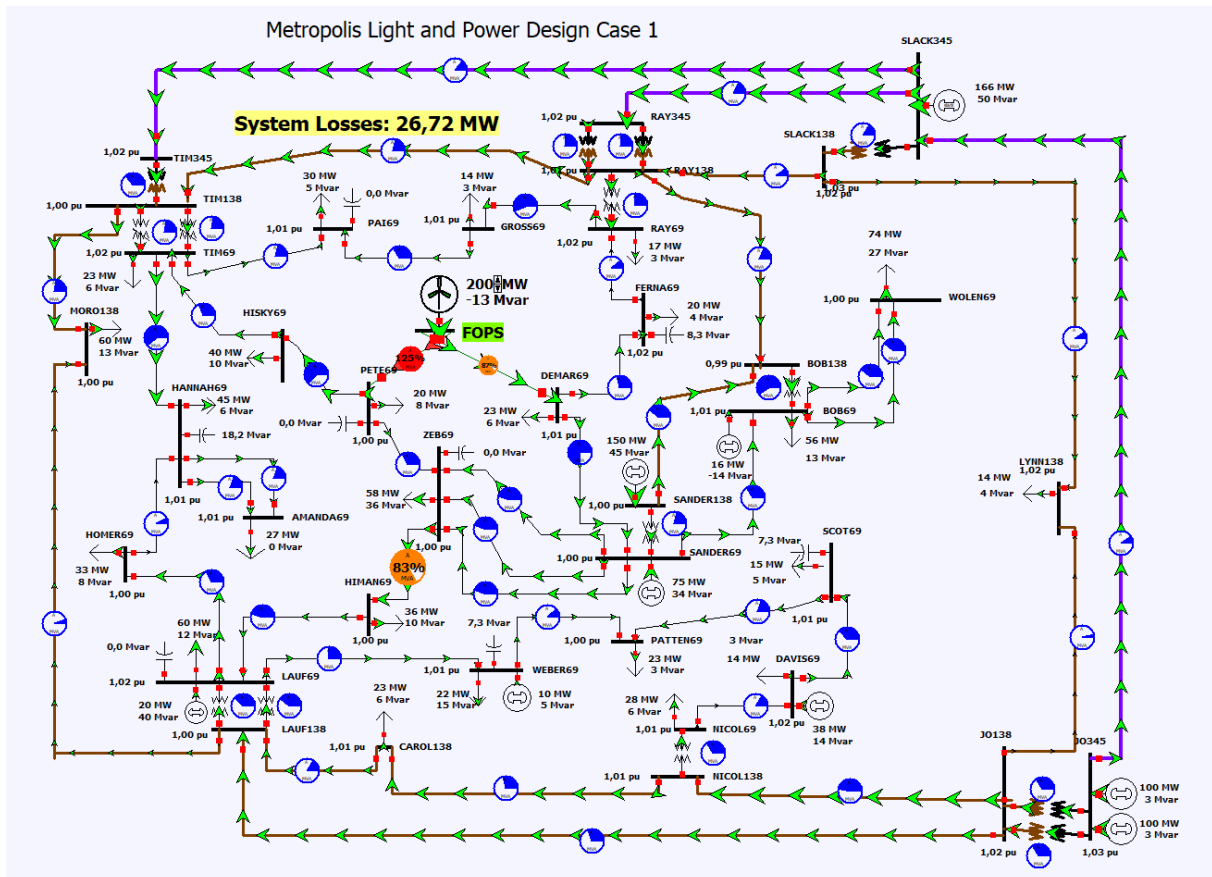
Here in that case POPS connected to PETE with CONDOR conductor and POPS connected to PAI with CONDOR conductor. As we can see both CONDOR conductors are working around 91%, so that we can say that two connection is usable for additional wind turbine system. We have 20,11 MW system lose with both CONDOR conductors instead of 10,71 MW which was the beginning case. With that case we will use CONDOR conductors on 25 miles for PETE station and 20 miles for PAI stations with

Experiment 10 PETE – ROOK, DEMAR – ROOK



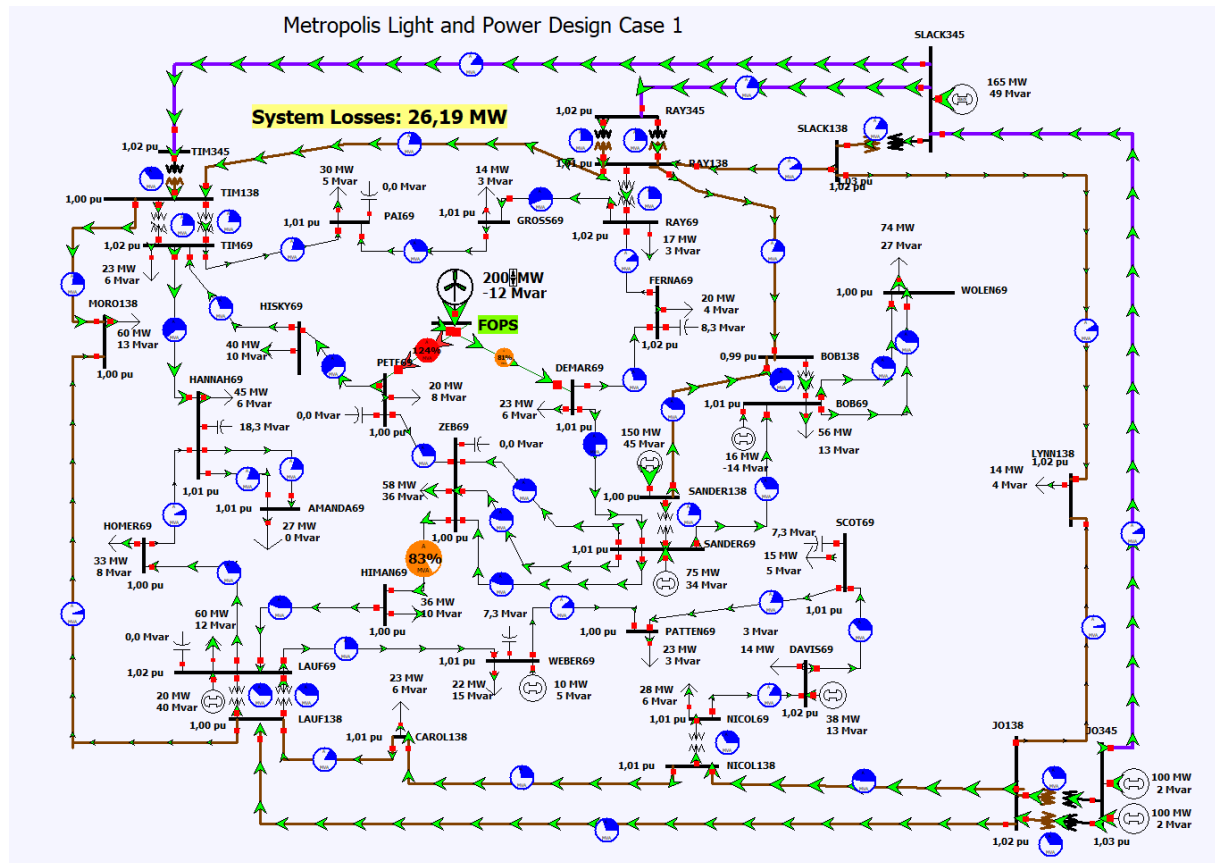
As shown in Figure 10. PETE is connected to POPS with ROOK conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working on the limits, ROOK conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 11 PETE – ROOK, DEMAR – CROW



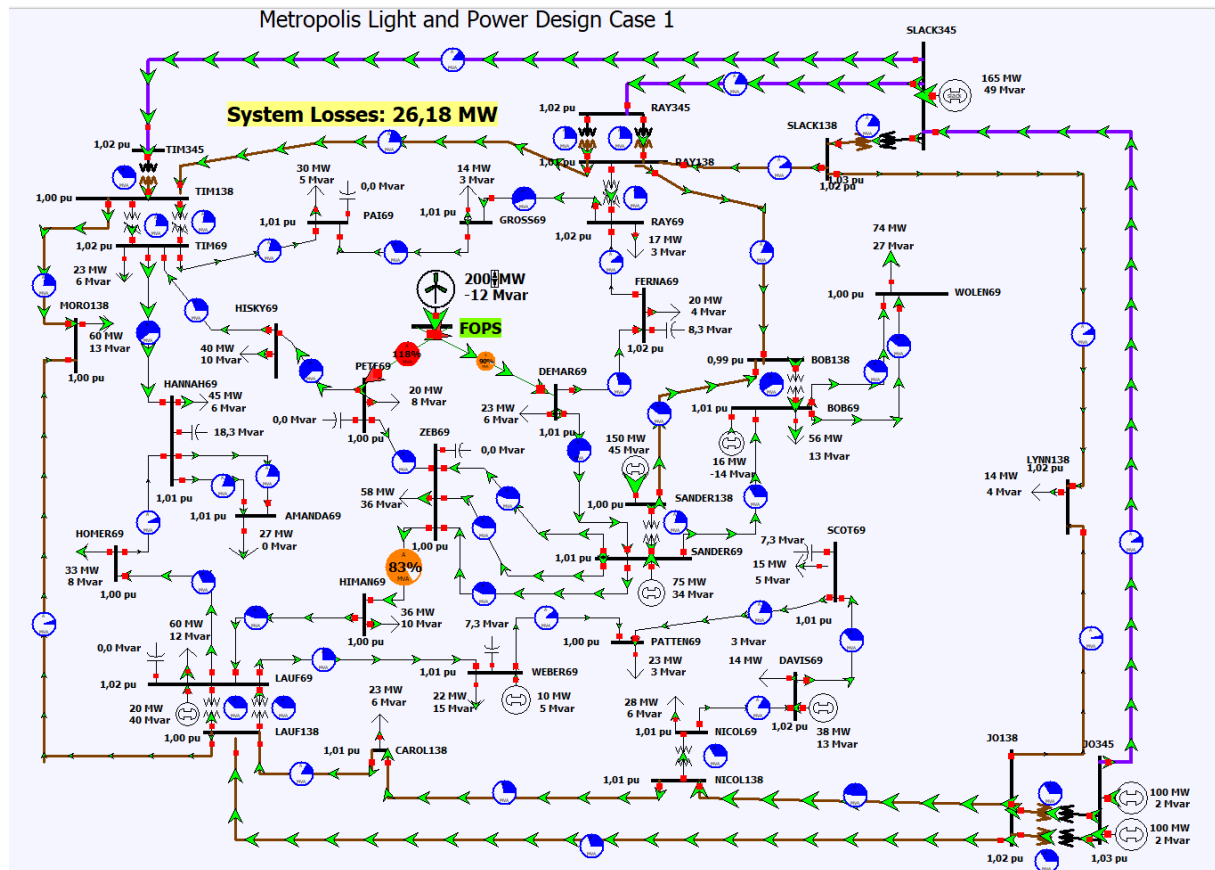
As shown in Figure 11. PETE is connected to POPS with ROOK conductor and DEMAR is connected to POPS with CROW conductor, even though ROOK conductor which connected to DEMAR is working without problem, ROOK conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 12 PETE – ROOK, DEMAR – CONDOR



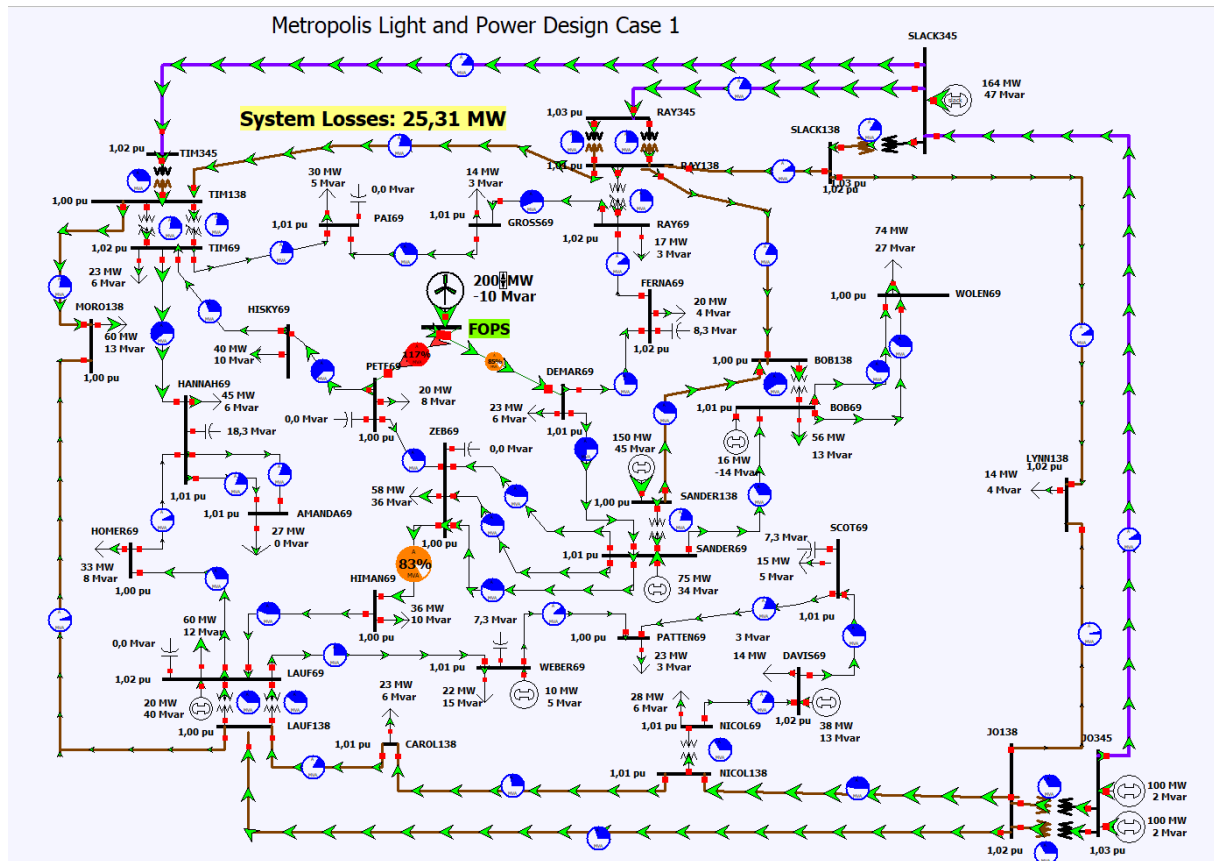
As shown in Figure 12. PETE is connected to POPS with ROOK conductor and DEMAR is connected to POPS with CONDOR conductor, even though ROOK conductor which connected to DEMAR is working without problem, ROOK conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 13 PETE – CROW, DEMAR – ROOK



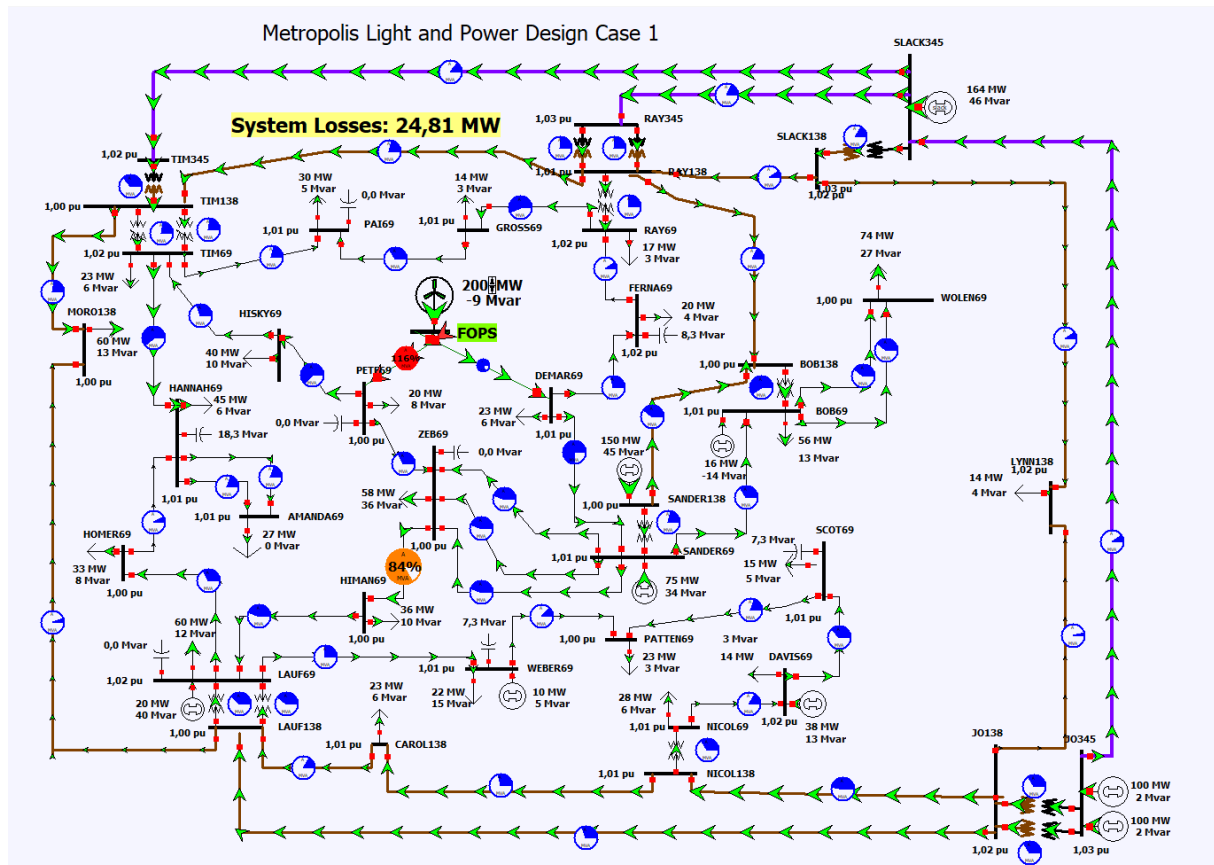
As shown in Figure 10. PETE is connected to POPS with CROW conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working on the limits, ROOK conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 14 PETE – CROW, DEMAR – CROW



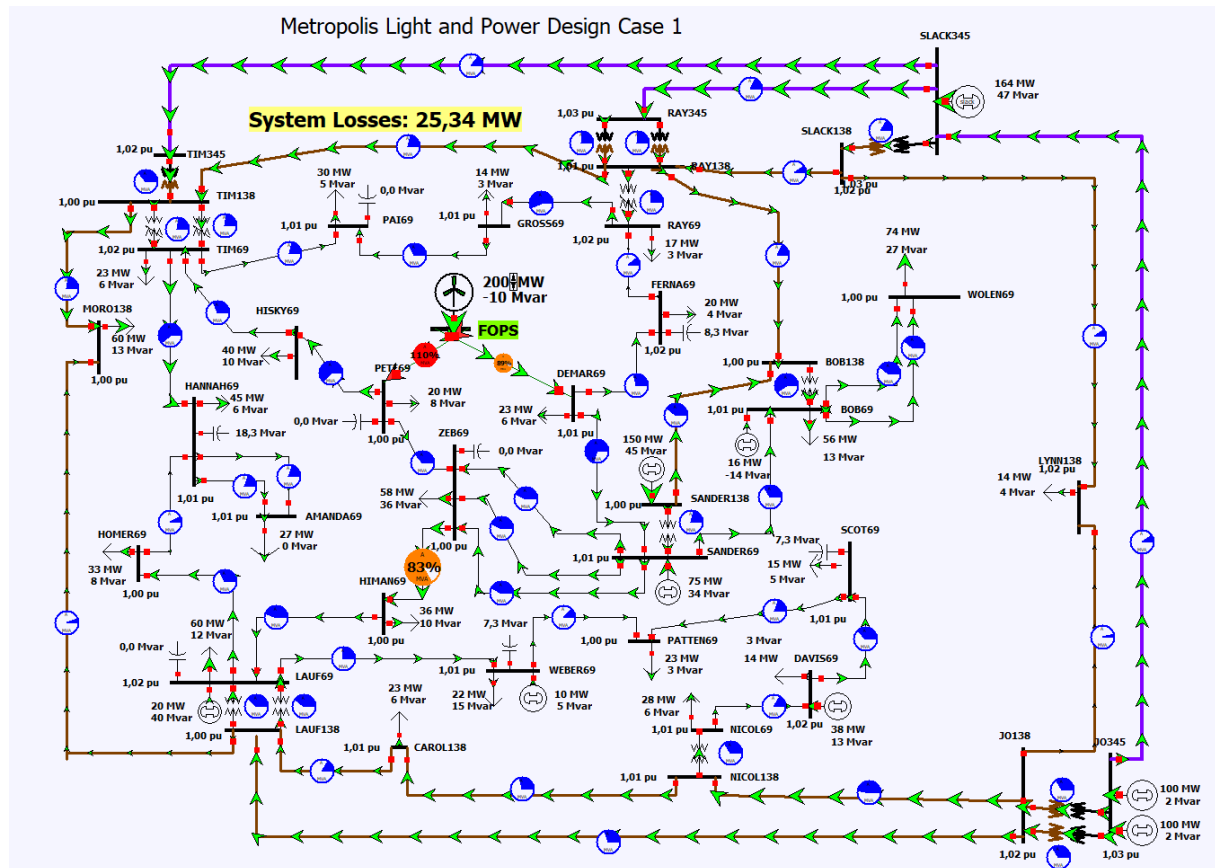
As shown in Figure 14. PETE is connected to POPS with CROW conductor and DEMAR is connected to POPS with CROW conductor, even though CROW conductor which connected to DEMAR is working without problem, CROW conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 15 PETE – CROW, DEMAR – CONDOR



As shown in Figure 15. PETE is connected to POPS with CROW conductor and DEMAR is connected to POPS with CONDOR conductor, even though CONDOR conductor which connected to DEMAR is working without problem, CROW conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

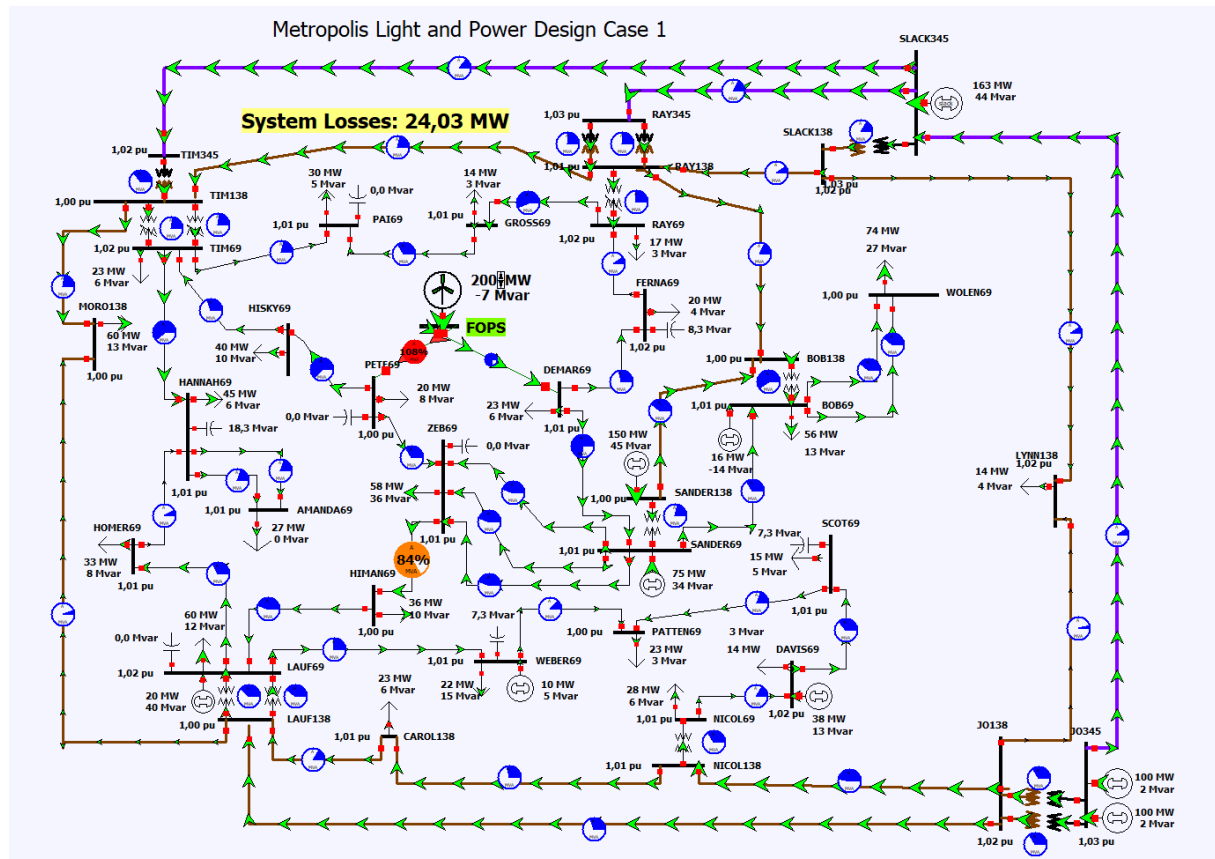
Experiment 16 PETE – CONDOR, DEMAR – ROOK



As shown in Figure 16. PETE is connected to POPS with CONDOR conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working without problem, CONDOR conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

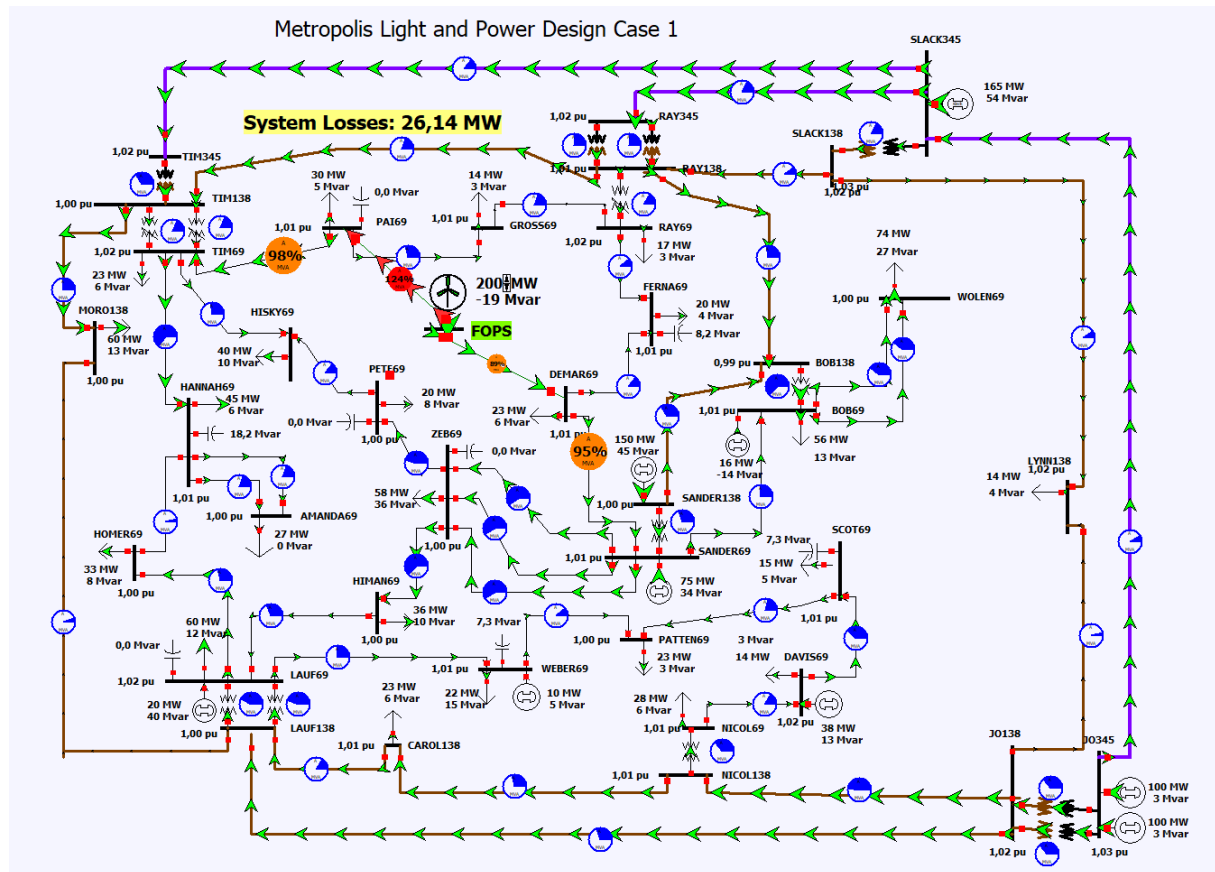
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Experiment 18 PETE – CONDOR, DEMAR – CONDOR



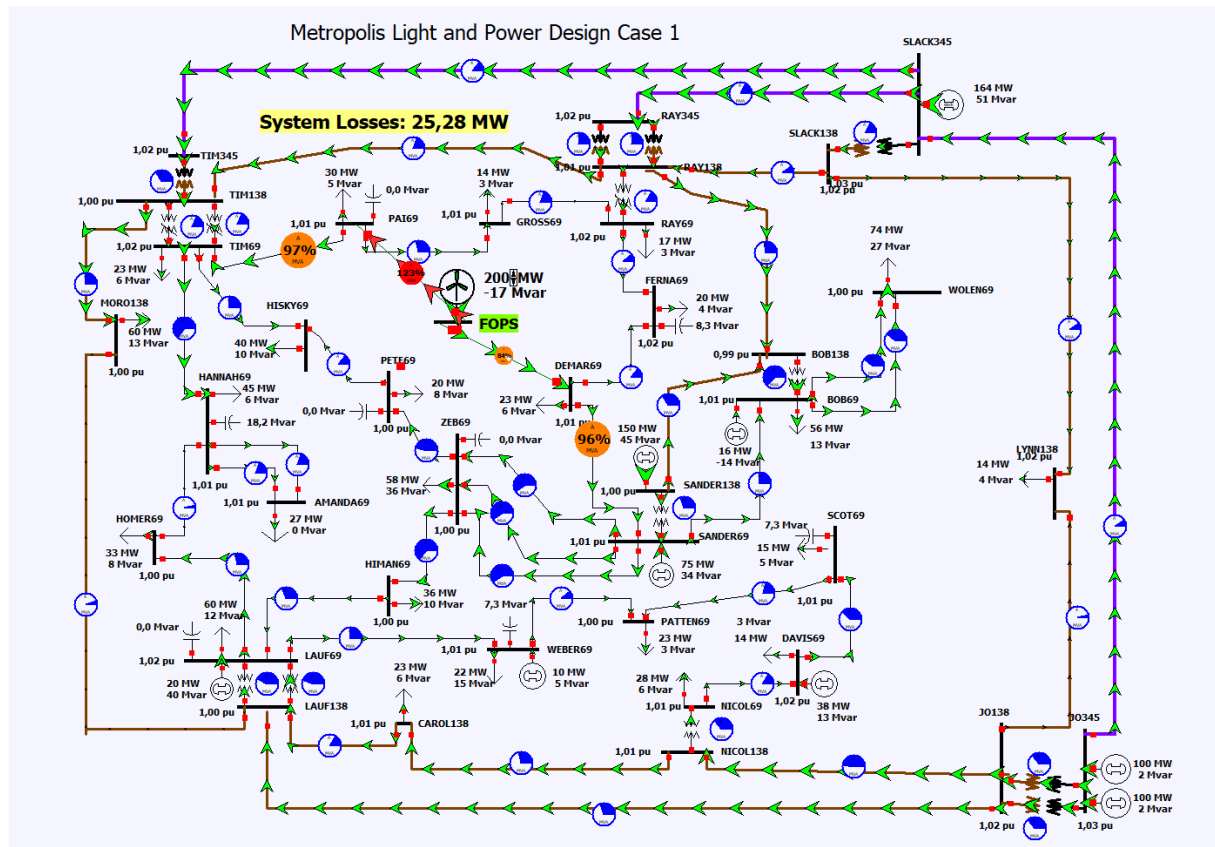
As shown in Figure 18. PETE is connected to POPS with CONDOR conductor and DEMAR is connected to POPS with CONDOR conductor, even though CONDOR conductor which connected to DEMAR is working without problem, CONDOR conductor which connected to PETE is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 19 PAI – ROOK, DEMAR – ROOK



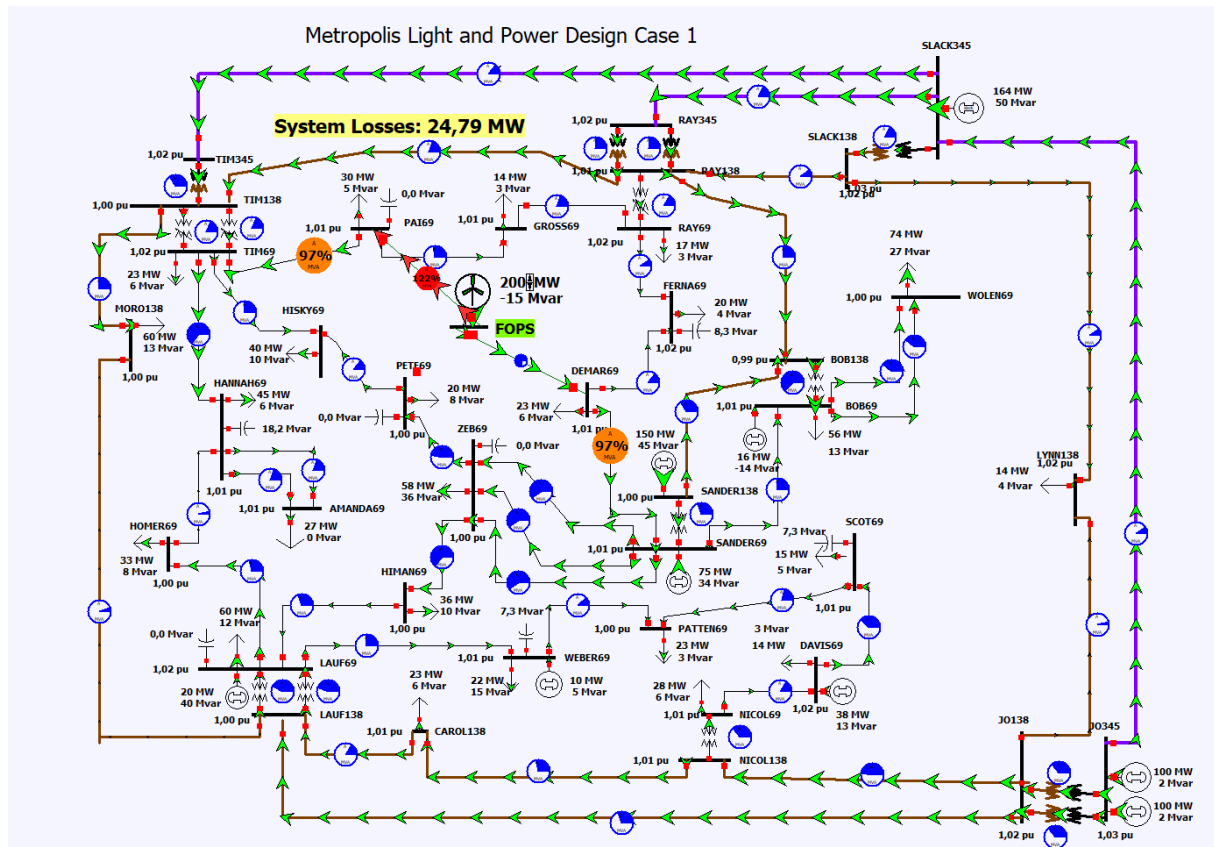
As shown in Figure 19. PAI is connected to POPS with ROOK conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working without problem, ROOK conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 20 PAI – ROOK, DEMAR – CROW



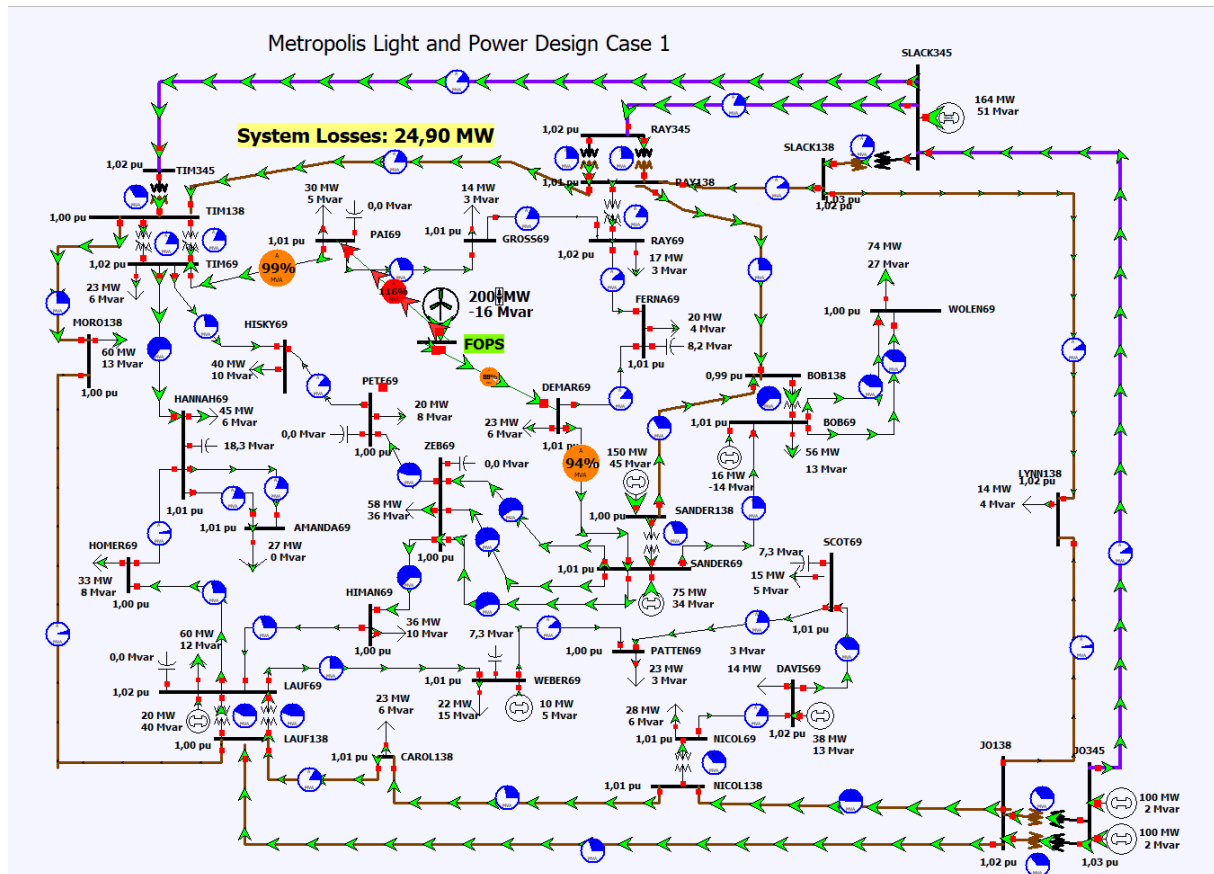
As shown in Figure 20. PAI is connected to POPS with ROOK conductor and DEMAR is connected to POPS with CROW conductor, even though CROW conductor which connected to DEMAR is working without problem, ROOK conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 21 PAI – ROOK, DEMAR – CONDOR



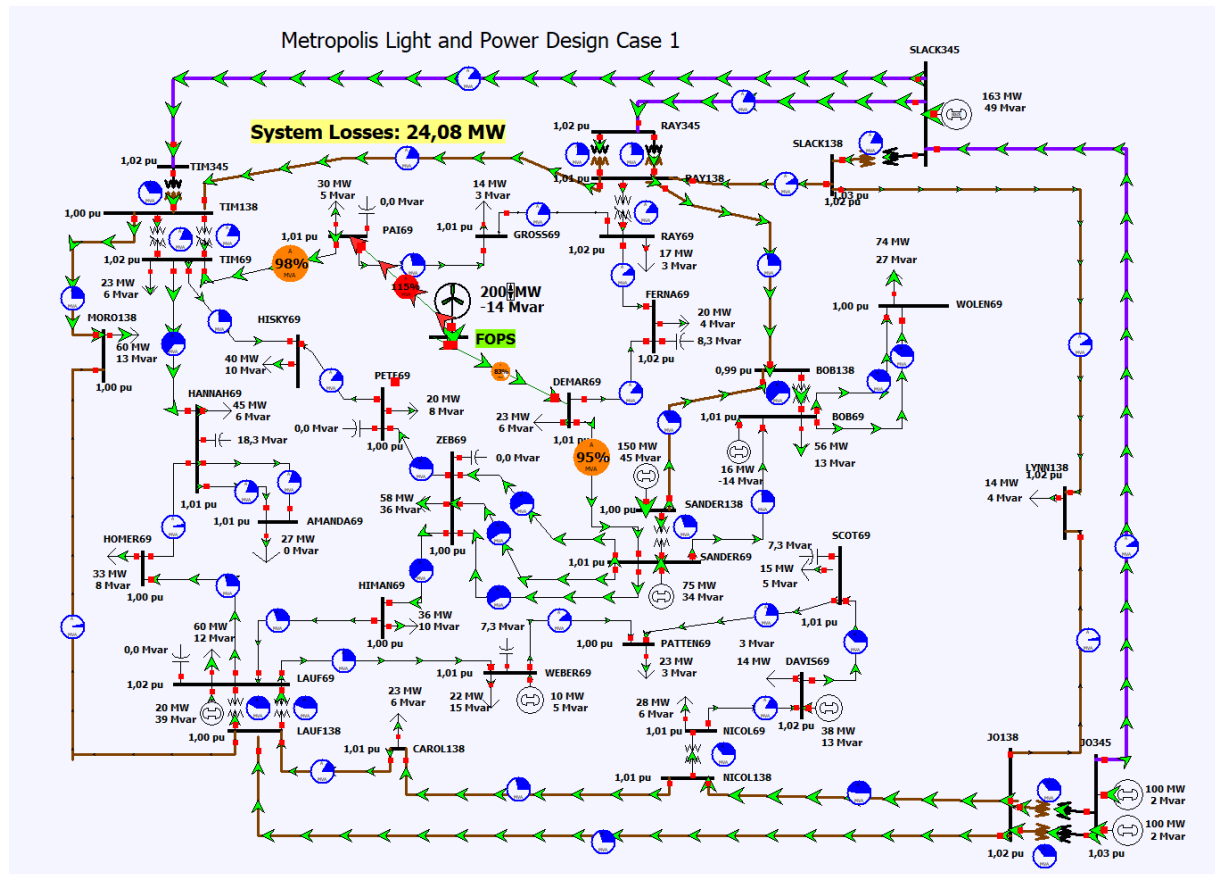
As shown in Figure 21. PAI is connected to POPS with ROOK conductor and DEMAR is connected to POPS with CONDOR conductor, even though CONDOR conductor which connected to DEMAR is working without problem, ROOK conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 22 PAI – CROW, DEMAR – ROOK



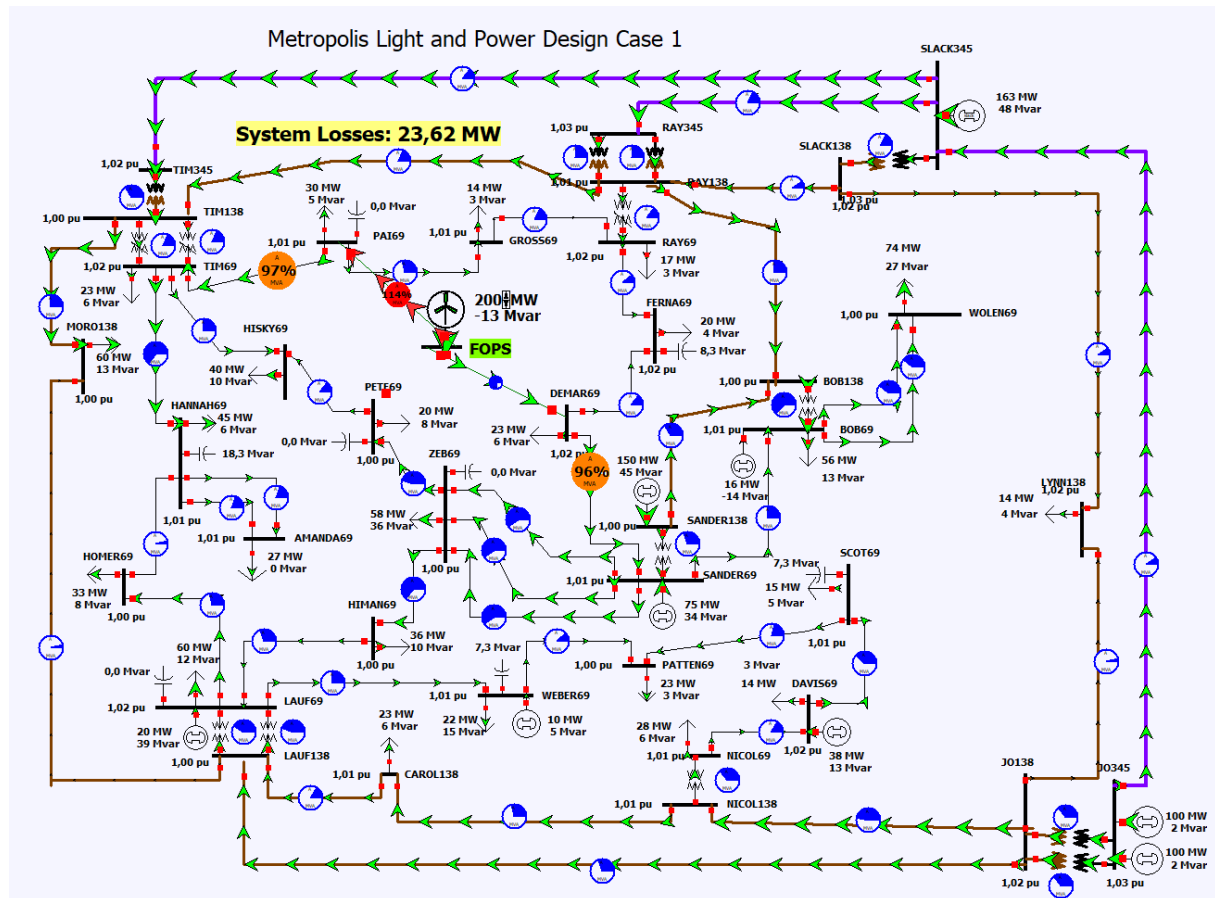
As shown in Figure 22. PAI is connected to POPS with CROW conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working without problem, CROW conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 23 PAI – CROW, DEMAR – CROW



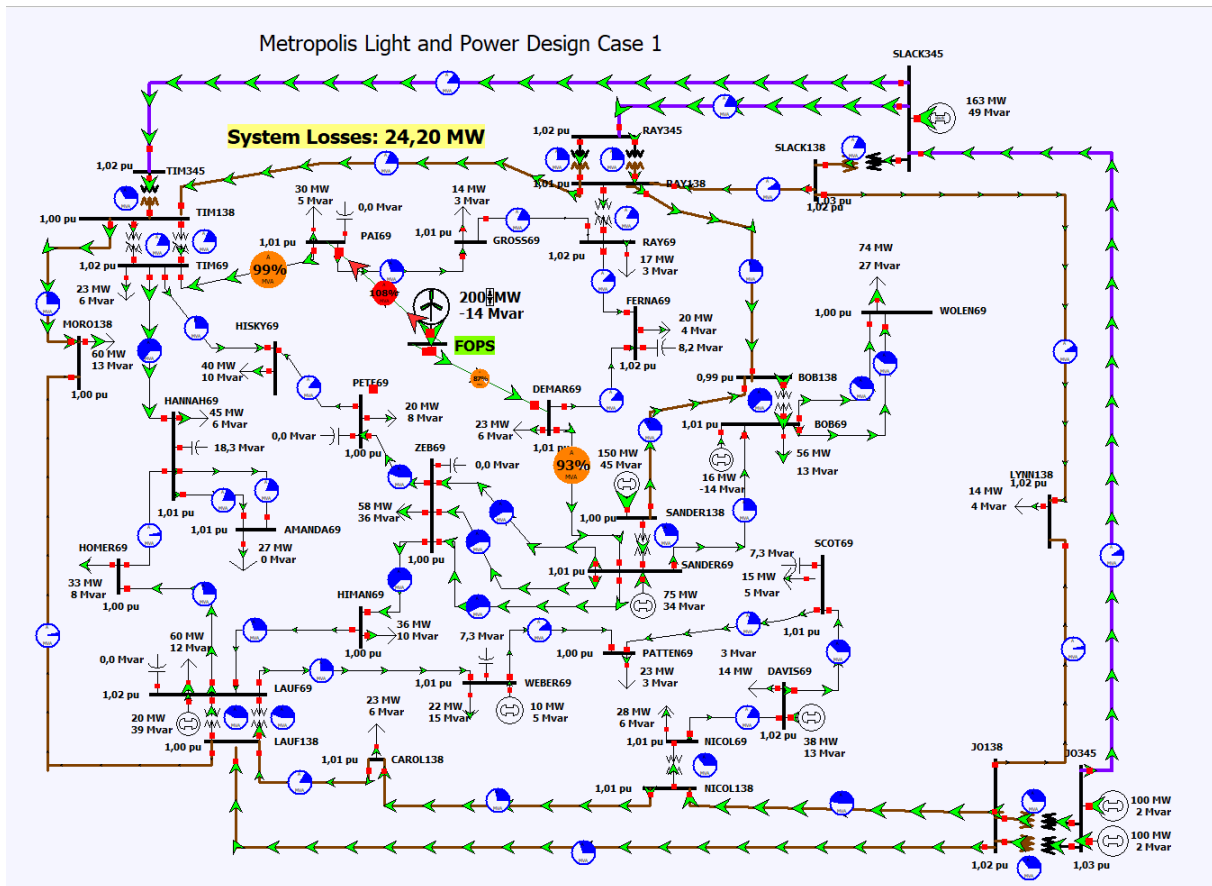
As shown in Figure 23. PAI is connected to POPS with CROW conductor and DEMAR is connected to POPS with CROW conductor, even though CROW conductor which connected to DEMAR is working without problem, CROW conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 24 PAI – CROW, DEMAR – CONDOR



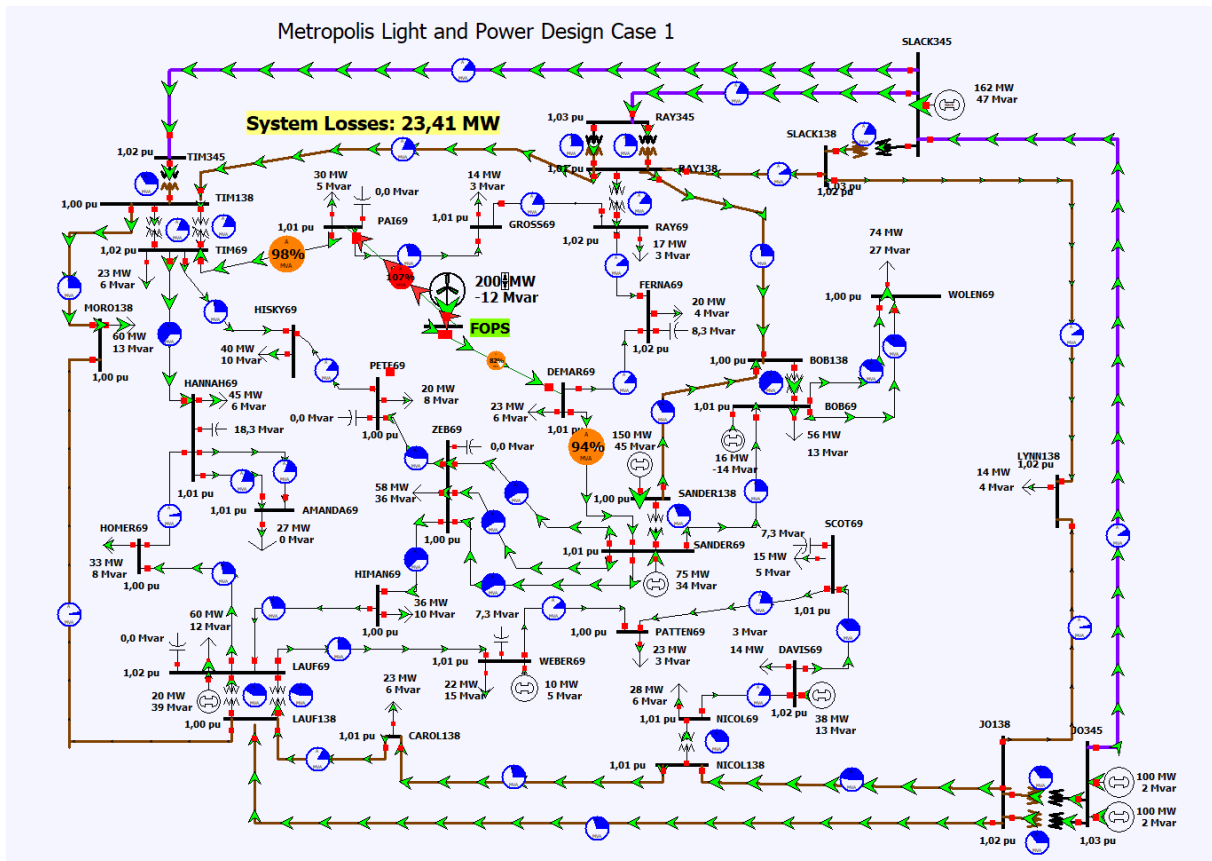
As shown in Figure 24. PAI is connected to POPS with CROW conductor and DEMAR is connected to POPS with CONDOR conductor, even though CONDOR conductor which connected to DEMAR is working without problem, CROW conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 25 PAI – CONDOR, DEMAR – ROOK



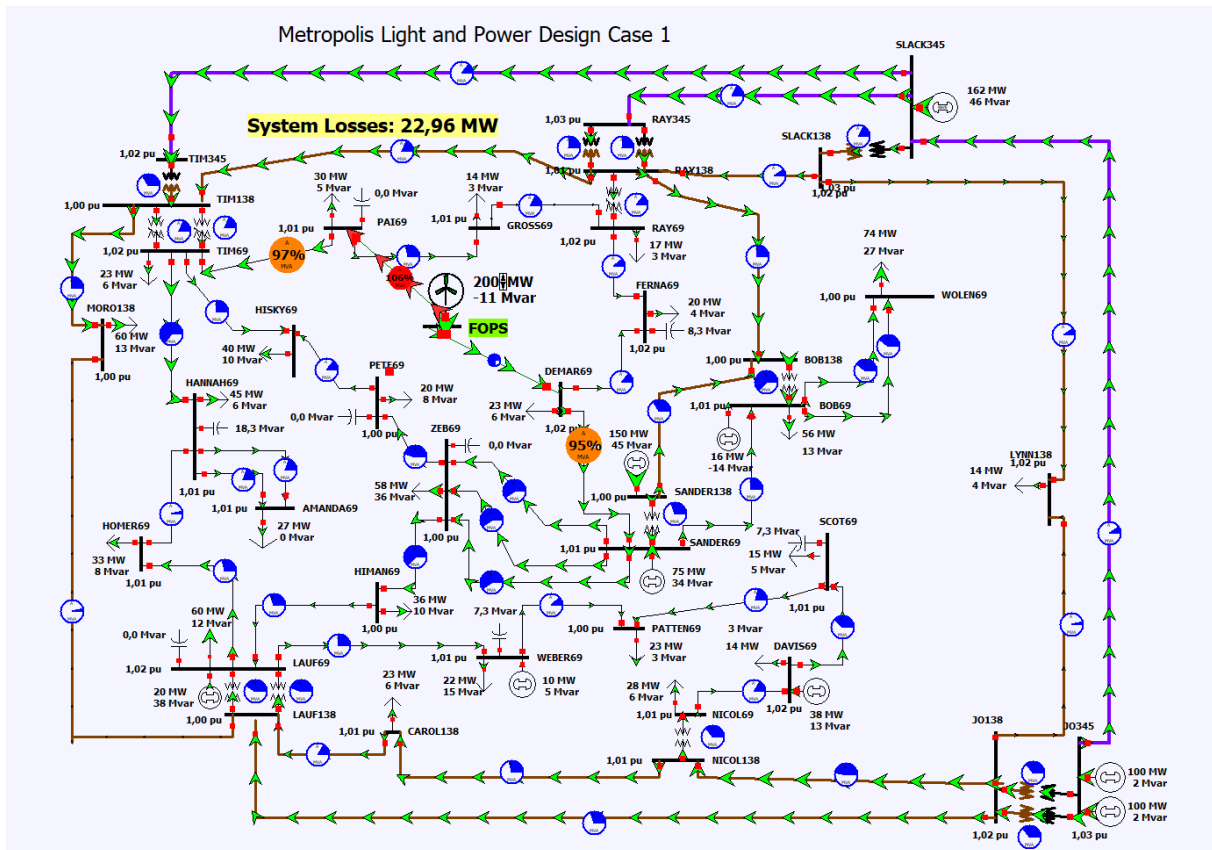
As shown in Figure 25. PAI is connected to POPS with CONDOR conductor and DEMAR is connected to POPS with ROOK conductor, even though ROOK conductor which connected to DEMAR is working without problem, CONDOR conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 26 PAI – CONDOR, DEMAR – CROW



As shown in Figure 26. PAI is connected to POPS with CONDOR conductor and DEMAR is connected to POPS with CROW conductor, even though CROW conductor which connected to DEMAR is working without problem, CONDOR conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.

Experiment 27 PAI – CONDOR, DEMAR – CONDOR



As shown in Figure 27. PAI is connected to POPS with CONDOR conductor and DEMAR is connected to POPS with CONDOR conductor, even though CONDOR conductor which connected to DEMAR is working without problem, CONDOR conductor which connected to PAI is not enough to carry that electric and that conductor is overloading, that means that conductor is going to burn down by that the system will not work. There is no need to calculate cost of cables and other stuff because that connection type is not usable for that wind turbine system.