

CHAPTER 6

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The generations of Region II of EGAT system are programmed to supply only minimum permissible load. The rest of the generations are imported from Region I over a double-circuit transmission tie-lines and EdL. When Region I and Region II are separated by disturbances or faults, deficiency in generation of Region II will occur.

System studies and tests were performed to determine the characteristics of Region II of the EGAT system. The results were summarized in Table 4.1 of chapter 4.

The underfrequency relay type FTG of the English Electric and its time delay unit were discussed and used for the preparing of load shedding scheme.

The optimum load shedding program for the Region II was developed using the frequency decrement equations of Appendix A and other equations in Appendix B through D. The procedure for developing a load shedding program was discussed in section 4.4 of chapter 4.

A computer program was developed to fulfil the trial and error method using for developing a load shedding program. For each combination of relay setting, coordination between adjacent relay settings were checked. If there was unsatisfactory coordination, new setting was performed and all the procedures were repeated. Area under load shedding step curves

was calculated for each combination and was compared to find the optimum combination for the load shedding scheme.

6.2 Recommendation

The load shedding scheme obtained from the studies, illustrated in Table 4.2 and Fig. 4.1 of chapter 4, will not effectively be applied to the Region II of EGAT system since the value of load reduction rate has been obtained from only one test. Several more tests should be performed to obtain a more accurate value of the reduction rate. A more effective load shedding scheme can then be made.

Since the underfrequency relay used in this study and also installed in the Region II system is responding to the frequency level only, it is felt that the underfrequency relay which responds to both frequency deviation and rate-of-change of frequency may work more effectively and is suggested for future studies.