

FAULT LEVEL CALCULATIONS FOLLOWING THE OPERATION OF THE 'VASILIKOS' POWER STATION

PROJECT REPORT SUBMITTED BY:

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CONTENTS

	<u>PAGE</u>
<u>SUMMARY</u>	I
<u>INTRODUCTION</u>	II
<u>CHAPTER 1</u> <i>THE ELECTRICITY AUTHORITY OF CYPRUS</i>	
1.1 BRIEF HISTORY OF EAC	1
1.2 MISSION OF EAC	3
1.3 DEPARTMENTS OF EAC	3
<u>CHAPTER 2</u> <i>POWER SYSTEM THEORY</i>	
2.1 AC QUANTITIES--COMPLEX FORM	5
2.2 PER UNIT SYSTEM	7
2.3 LOAD FLOW STUDIES	8
2.4 FAULT ANALYSIS	13
<u>CHAPTER 3</u> <i>NETWORK MODELLING</i>	
3.1 NETWORK REPRESENTATION	20
3.2 GENERATORS MODELING	20
3.3 TRANSFORMERS MODELING	22
3.4 TRANSMISSION LINES MODELING	22
3.5 LOADS MODELING	24
3.6 SHUNT ELEMENTS MODELING	24
<u>CHAPTER 4</u> <i>PROGRAM PSA</i>	
4.1 LOAD FLOW STUDY	
4.1.1 GENERAL CHARACTERISTICS	26
4.1.2 PSA PACKAGE: LOAD FLOW OPTION	27
4.2 FAULT LEVEL CALCULATION STUDY	
4.2.1 GENERAL CHARACTERISTICS	39
4.2.2 PSA PACKAGE: FAULT ANALYSIS OPTION	40
<u>CHAPTER 5</u> <i>RUNNING THE PSA PROGRAM-RESULTS</i>	
5.1 FILES TO BE CREATED	57
5.2 RUNNING THE PROGRAM	60
5.3 RESULTS	63

CHAPTER 6
CONCLUSIONS

PAGE

70

REFERENCES
APPENDIX A
APPENDIX B

DEDICATION

THIS PROJECT IS DEDICATED
TO MY FAMILY AND MY FRIENDS

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SUMMARY

This project deals with the expected rise of the prospective fault levels in the network of the Electricity Authority of Cyprus with the establishment of the 'Vasilikos' power station. These expected fault levels shall be under study so that the whole system is adjusted in order to avoid any malfunctioning and to provide normal operation. To do so, fault analysis is provided.

The expected fault levels can be calculated by a Power System Analysis (PSA) package. The PSA program calculates the dynamic response of an electrical power system to network fault and branch switching disturbances. By focusing on the modeling of the power system components and on a proper use of the PSA output the fault levels of a power system can be handled.

After performing the fault level calculations the system under study is more reliable and the case of damage is minimized. The three phase faults are proved to be more severe than single phase to earth faults. The busbars which are close to the generators have greater single phase fault than three phase fault.