

LIST OF TABLES

Table	Page
2.1 Setting range allowed for Zone 5 and Zone 6	48
3.1 MW and MVAR demand of the loads constituting the Perseus, Hydra and Muldersvlei load centres	64
3.2 MW and MVAR demand of the Perseus, Hydra and Muldersvlei load centres	66
3.3 The active power Perseus/Beta exports to the Western Cape	71
3.4 MVAR rating of the line charging present in the tie line	80
3.5 Comparing the tie line model and detailed network model with regard to voltages	81
3.6 Comparing the tie line model and detailed network model with regard to active power flows	83
3.7 Comparing the tie line model and detailed network model with regard to reactive power flows	83
3.8 Average VAR contribution the tie line SVCs make during the first slip cycle	90
3.9 Angle between the voltage behind transient reactance and the synchronously rotating reference	96

4.1	Induction motor parameters CLOAD uses	115
4.2	Load components of CLOAD	117
4.3	Parameters CLOAD uses	118
4.4	Definition of the NRS-048 Dip Chart	127
4.5	Comparing the improved two generator model and the detailed network model with regard to power angle	134
4.6	Comparing the improved two generator model and detailed network model with regard to the voltage behind transient reactance	135
5.1	Load components of CLOAD	166
G.1	Load class energy usage in the United States in 1982	228
G.2	Bulk contributors to residential peak demand	228
G.3	Appliance use per customer	231
G.4	Composition of the commercial load class	234
G.5	The industrial load classes with associated components	236
H.1	T'_{do} and T'_{qo} of the Koeberg generator	241
I.1	Impedance seen at Hydra	250