

# SAPP TRANSFER LIMITS SUMMARY REPORT FOR 2016 (NORTH TO SOUTH) - PEAK CASE -

PERIOD : (1 MAY 2016 TO 31 AUGUST 2016)

No.	Countries	Utility From - To	Interconnection From - To	Voltage kV	No. of lines	Contingency	Reason for Limit	Transfer Limit, MW
1	DRC - Zambia	SNEL - CEC	-Michelo- Kasumbalesa -Karavia - Luano -Karavia - Michelo	220	1	Karavia-Michello outage	Voltage collapse in Katanga, Kitwe areas	600
2	Zambia	CEC - ZESCO	Luano - Kabwe			Kabwe-Kitwe outage	Low voltages at Luano	600
3	Zambia - Namibia	ZESCO - NAM	Livingstone - Sesheke- Zambezi	220	1	1 x 315 MVA Zambezi transformer outage	Low voltages at Zambezi	120
4	Namibia	NAMPOWER	Zambezi - Gerus	350	1	1 x 315 MVA Zambezi transformer outage	Low voltages at Zambezi	120
5	Zambia - Zimbabwe	ZESCO -ZESA	Kariba North - Kariba South	330	2	Outage of one Kariba North - Kariba South 330 kV line	Voltage collapse at Bindura	642
6	Zimbabwe	ZESA	Kariba South- Insukamini	330		Outage of one Alaska -Sherwood	Voltage collapse at Orange Grove & Norton	642
7	Mozambique - Zimbabwe	HCB -ZESA	Songo-Bindura	330	1	Outage of one Alaska -Sherwood	Voltage collapse at Norton	375
8	Zimbabwe - Botswana	ZESA -BPC	Insukamini - Phokoje	400	1	Alaska - Sherwood outage	voltage collapse at Orange Grove & Norton, transient instability	288
9	Zimbabwe - Botswana	ZESA -BPC	Bulawayo- Francistown	220	1	Insukamini - Phokoje outage	Thermal limit of Marvel Tx	95
10	Botswana - South Africa	BPC - ESKOM	Phokoje - Matimba	400	1	Spitskop-BPC 132kV line outage	Gaborone South - Segoditshane 132 kV line thermal overload	190
11	Botswana - South Africa	BPC - ESKOM	Derderport - Dwaalboom	132	1	Spitkop - Gaborone 132 kV lines outage	Voltage collapse in Dwaalboom	188
12	Botswana - South Africa	BPC - ESKOM	Gaborone South- Spitskop	132	2	Phokoje - Matimba outage	Segoditshane voltage below 0.95pu	168
13	South Africa - Namibia	ESKOM -NAM	Aries - Kokerboom	400	1	2 x 220 kV Aggeneis – Harib lines outage	Under voltage at Kokerboom	361
14	South Africa - Namibia	ESKOM -NAM	Aggeneis – Harib	220	2	Aries-Kokerboom 400kV line outage	Low voltage 220 kV Kokerboom / Hardap	340
15	Zimbabwe - Mozambique	ZESA -EDM_N	Mutare - Chicamba	110	1	Bindura - Dema 330 kV outage	Low voltage at Middle Sabi	20
16	South Africa - Mozambique	ESKOM -EDM_S	Komatipoort - Ressano Garcia	275	1	Maputo - Matola outage and tripping of generation at Ressano Garcia	Voltage collapse at Influeene prior to thermal limit	157
17	South Africa - Lesotho	ESKOM-LEC	Tweespruit-Maseru	132	2	Merapi - Tweespruit line outage	Low voltage at Litsoeneng 132 kV	127
18	RSA -Swaziland - Mozambique	ESKOM -SEC-EDM_S (MOTRACO)	Camden - Edwaleni and Edwaleni -Maputo	400	1	Camden – Edwaleni 400 kV line with Arnot – Maputo line reactor out of service	Under voltage in Maputo area	1328
19	South Africa - Swaziland	ESKOM-SEC	Normandie-Nhlangano	132	1	Camden - Edwaleni 400kV line outage	Voltage collapse at Mankomo and Usutu 66 kV bus bars Also 120 MVar Barberton series capacitor bank thermal overload for continuous rating	81
20	Zambia - Mozambique	ZESCO - HCB	Kariba North - Songo	400	1	Outage of one Alaska -Sherwood	Voltage collapse at Norton	375