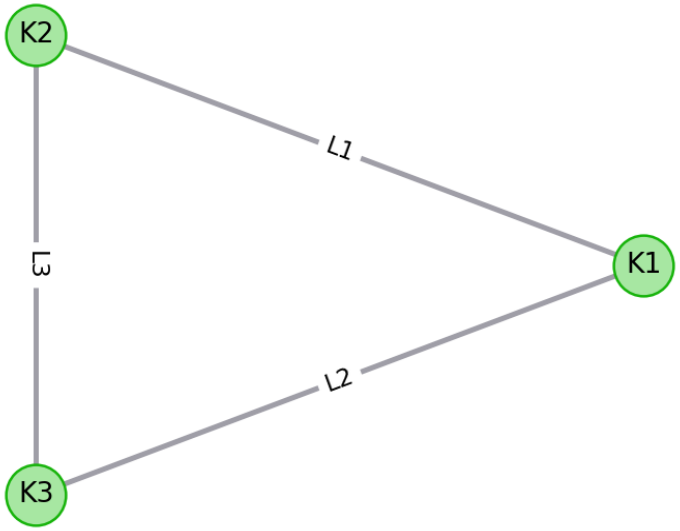
PowerFlow - Results

Grid

Schematic of the electrical grid



PowerFlow - Results

Results

Table of buses at minimal Grid Load - V_ref = 220 kV and S_ref = 100 MVA

name	type	|P_L|	|P_G|	P	|Q_L|	|Q_G|	Q	|U|	theta in °
K1	slack	1.0	0.5	-0.5	0.5	1.074	0.574	1.0	0.0
K2	PV	0.0	1.5	1.5	0.0	0.608	0.608	1.0	3.895
K3	PQ	1.0	0	-1.0	1.0	0	-1.0	0.945	-1.087

L: load, G: generation

Table of lines minimal Grid Load - data in physical values

name	bus i	bus j	P_loss in W	|I_ij| in A
L1	K1	K2	0.0	178.365
L2	K1	K3	0.0	151.942
L3	K2	K3	0.0	264.428

i: bus at start, j: bus at end

Table of buses at maximal Grid Load - V_ref = 220 kV and S_ref = 100 MVA

name	type	|P_L|	|P_G|	P	|Q_L|	|Q_G|	Q	|U|	theta in °
K1	slack	1.0	1.5	0.5	0.5	1.133	0.633	1.0	0.0
K2	PV	0.0	1.5	1.5	0.0	0.667	0.667	1.0	1.952
K3	PQ	2.0	0	-2.0	1.0	0	-1.0	0.941	-5.125

L: load, G: generation

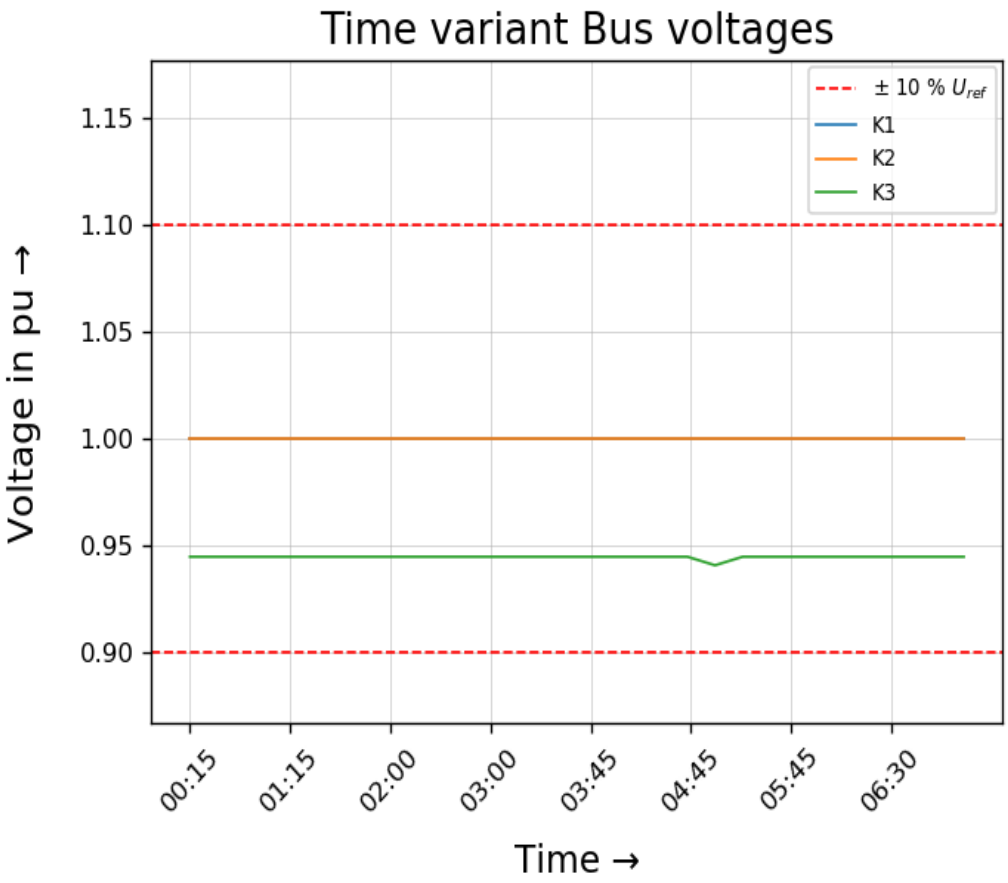
Table of lines maximal Grid Load - data in physical values

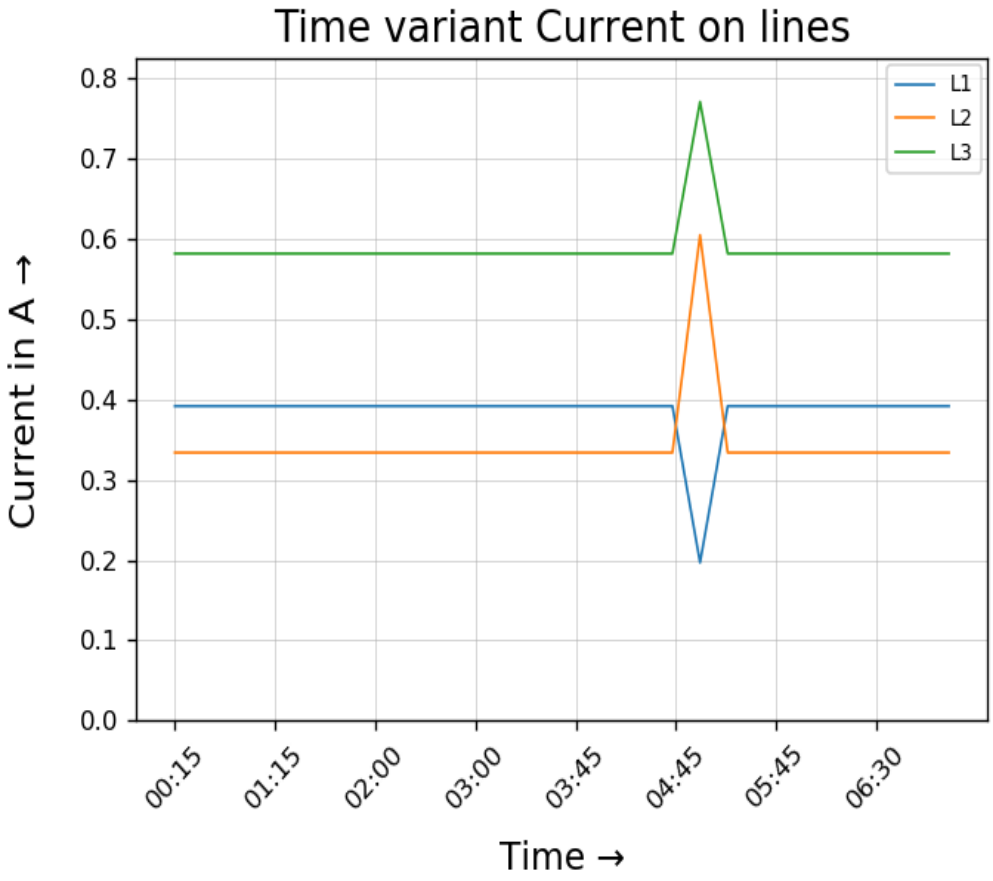
name	bus i	bus j	P_loss in W	|I_ij| in A
L1	K1	K2	0.0	89.401
L2	K1	K3	0.0	275.213
L3	K2	K3	0.0	350.247

i: bus at start, j: bus at end

PowerFlow - Results

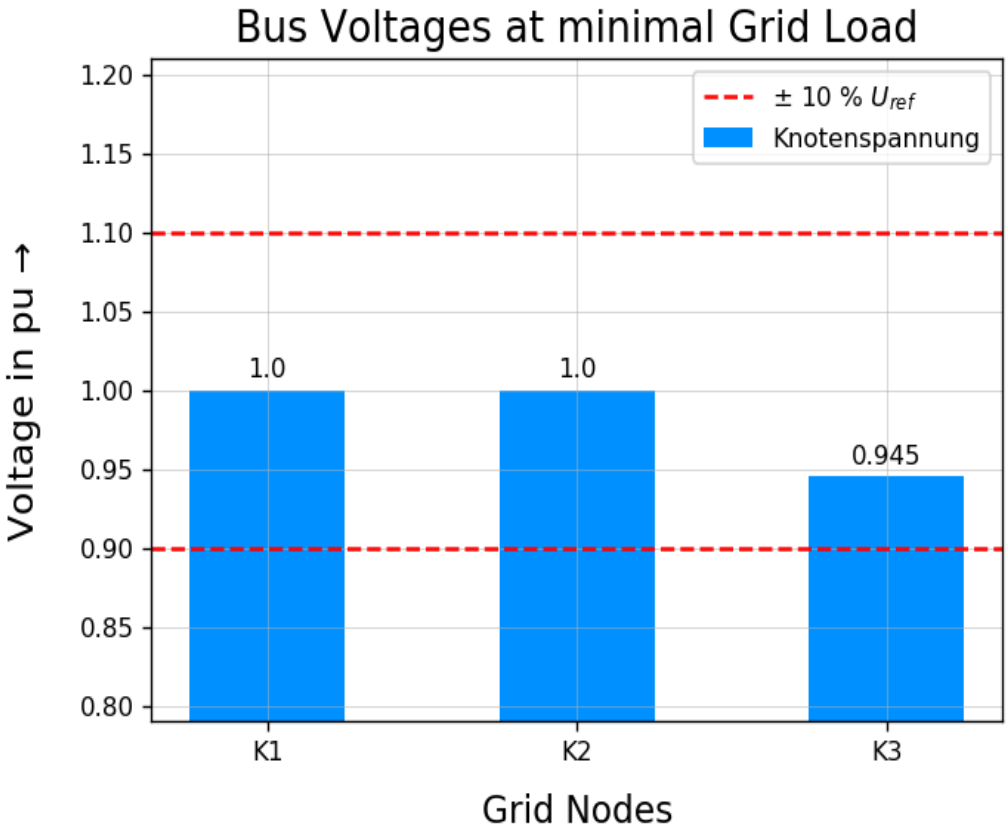
Time variant Plots

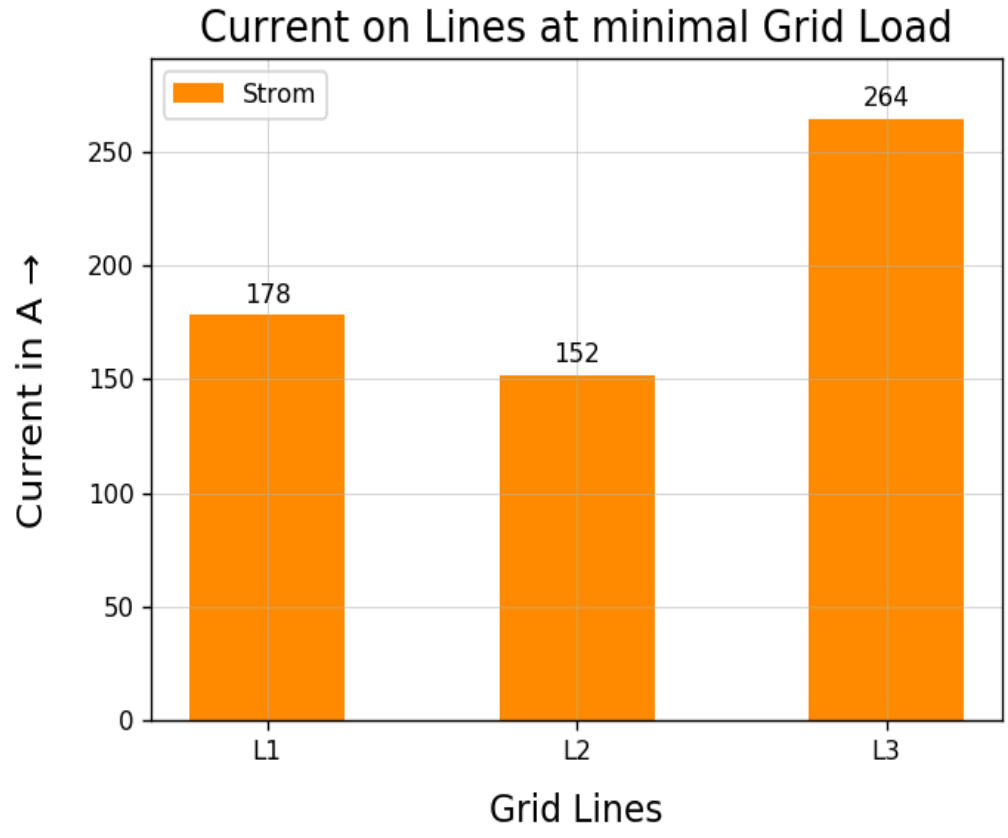




PowerFlow - Results

Plots at minimal Grid Load





PowerFlow - Results

Plots at maximal Grid Load