TABLE I: MPOPF performance comparison - ADS10 test system for 24h

Metric	BFM-NL	LinDistFlow
Full horizon		
Substation power cost ($)	204.27	204.28
Substation real power (kW)	1528.35	1528.4
Line loss (kW)	0.28	0.33
Substation reactive power (kVAR)	428.9	795.56
PV reactive power (kVAR)	174.41	-0.69
Battery reactive power (kVAR)	192.8	-0.37
Computation		
Number of Iterations	1	1
Total Simulation Time (s)	2.64	0.77

TABLE II: MPOPF feasibility comparison - ADS10 test system for 24h

Metric	BFM-NL	LinDistFlow
Max. all-time discrepancy		
Voltage (pu)	0.00001	0.00001
Line loss (kW)	0.000009	0.000006
Substation power (kW)	0.000014	0.02410
Substation reactive power (kVAR)	0.070706	0.05618

TABLE III: MPOPF performance comparison - IEEE123-A test system for 24h

Metric	BFM-NL	LinDistFlow$^{\mathbb{O}}$
Largest subproblem		
Decision variables	15144	12096
Linear constraints	18456	22200
Nonlinear constraints	3672	0
Simulation results		
Substation power cost ($)	2787.44	2798.4
Substation real power (kW)	20984.89	21065.89
Line loss (kW)	380.09	461.38
Substation reactive power (kVAR)	6835.82	12259.29
PV reactive power (kVAR)	1972.27	195.12
Battery reactive power (kVAR)	3709.71	204.63
Computation		
Total Simulation Time (s)	17.44	0.85

TABLE IV: MPOPF feasibility comparison - IEEE123-A for 24h

Metric	BFM-NL	LinDistFlow
Max. all-time discrepancy		
Voltage (pu)	0.00007	0.00206
Line loss (kW)	0.01818	1.8074
Substation power (kW)	0.43164	32.362
Substation reactive power (kVAR)	1.0102	64.403

TABLE V: MPOPF performance comparison - IEEE730 test system for 24h

Metric	BFM-NL	LinDistFlow$^{\mathbb{O}}$
Largest subproblem		
Decision variables	00000	67224
Linear constraints	00000	131616
Nonlinear constraints	0000	0
Simulation results		
Substation power cost ($)	0000	1515.98
Substation real power (kW)	0000	12136.85
Line loss (kW)	0000	139.07
Substation reactive power (kVAR)	0000	4586.75
PV reactive power (kVAR)	0000	-18.69
Battery reactive power (kVAR)	0000	-14.33
Computation		
Total Simulation Time (s)	0000	7.67