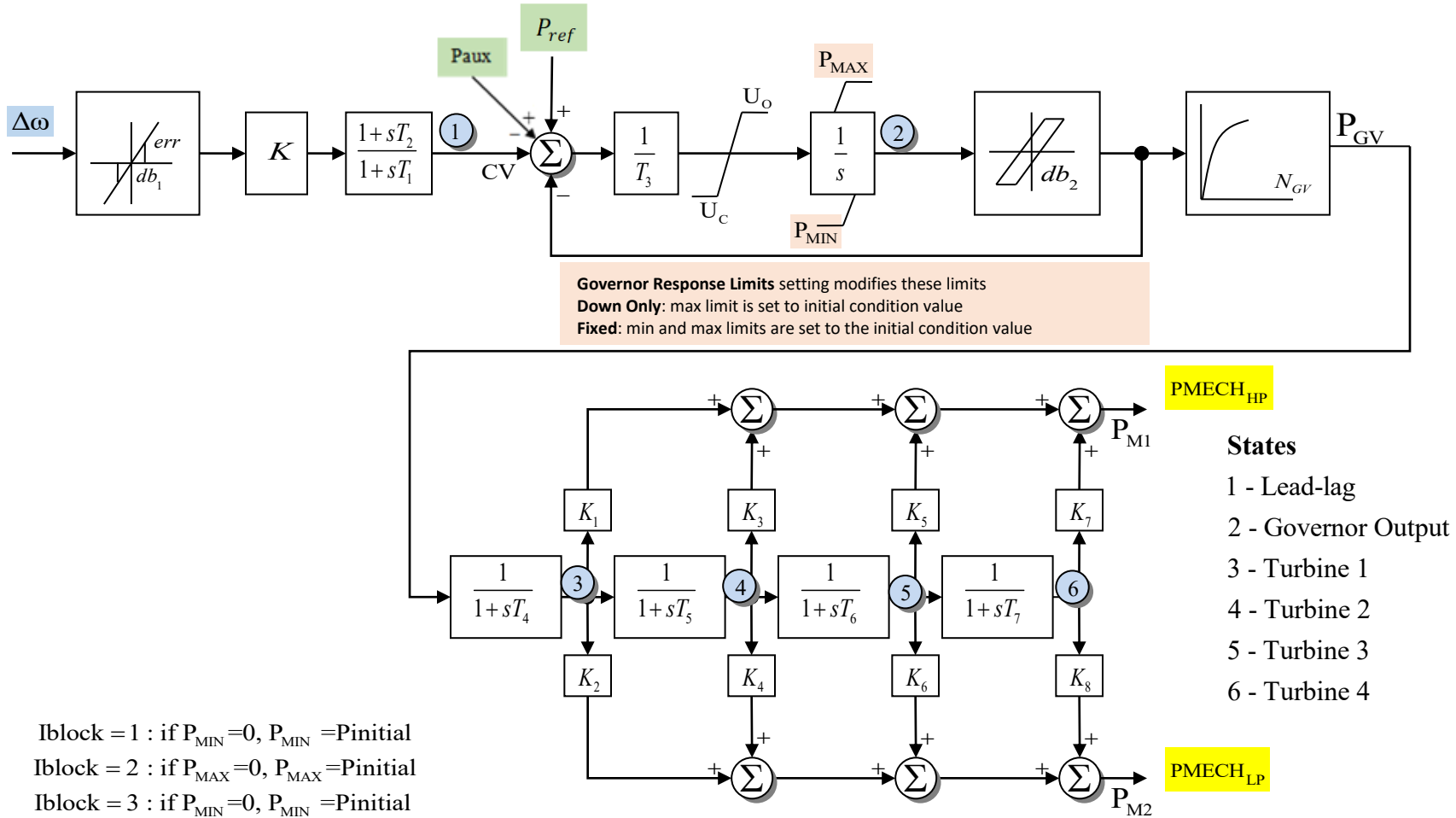


Governor WSIEG1

Governor WSIEG1 *WECC Modified IEEE Type 1 Speed-Governor Model*



Iblock = 1 : if $P_{MIN}=0$, $P_{MIN}=P_{initial}$
 Iblock = 2 : if $P_{MAX}=0$, $P_{MAX}=P_{initial}$
 Iblock = 3 : if $P_{MIN}=0$, $P_{MIN}=P_{initial}$
 : if $P_{MAX}=0$, $P_{MAX}=P_{initial}$

GV1, PGV1...GV5, PGV5 are the x,y coordinates of N_{GV} block

Model supported by PSSE

Parameters:

K	Governor gain (recirpocal of droop), pu
T1	Governor mechanism time constant, sec
T2	Turbine power time constant, sec
T3	Turbine exhaust temperature time constant, sec
Uo	Maximum valve opening velocity, pu/sec
Uc	Maximum valve closing velocity, pu/sec
Pmax	Maximum gate opening, pu of mwcap
Pmin	Minimum gate opening, pu of mwcap
T4	Governor lead time constant, sec
K1	Fraction of hp shaft power after first boiler pass
K2	Fraction of lp shaft power after first boiler pass
T5	Governor lag time constant, sec
K3	Fraction of hp shaft power after second boiler pass
K4	Fraction of lp shaft power after second boiler pass
T6	T, sec
K5	Fraction of hp shaft power after third boiler pass
K6	Fraction of lp shaft power after third boiler pass
T7	T, sec
K7	Fraction of hp shaft power after fourth boiler pass
K8	Fraction of lp shaft power after fourth boiler pass
db1pu	Intentional deadband width, pu
Err	Intentional db hysteresis, pu
db2pu	Unintentional deadband, pu
Gv1	Nonlinear gain point 1, pu gv
Pgv1	Nonlinear gain point 1, pu power
Gv2	Nonlinear gain point 2, pu gv
Pgv2	Nonlinear gain point 2, pu power
Gv3	Nonlinear gain point 3, pu gv
Pgv3	Nonlinear gain point 3, pu power
Gv4	Nonlinear gain point 4, pu gv
Pgv4	Nonlinear gain point 4, pu power
Gv5	Nonlinear gain point 5, pu gv
Pgv5	Nonlinear gain point 5, pu power
lblock	Pmin and Pmax initialization.