1. Sample P_{CIG} and P_{SG}
2. Calculate $P_D = P_{CIG} + P_{SG}$

if $P_D < P_D^{min}$
R_3 Neglet this point
else if $P_G > P_D^{max}$
R_2 Neglet this point
else
R_1 $P_D = P_{CIG} + P_{SG}$

4. Share P_{CIG}, P_{SG}, P_D among generators and loads according to the participation factors