

Data for Two area system

$$P_{r1} = P_{r2} = 2000 \text{ MW},$$

$$H_1 = H_2 = 5 \text{ s},$$

$$T_{r1} = T_{r2} = 0.3 \text{ s},$$

$$T_{g1} = T_{g2} = 0.08 \text{ s},$$

$$T_{r1} = T_{r2} = 10 \text{ s},$$

$$K_{r1} = K_{r2} = 0.5,$$

$$K_{t1} = K_{t2} = 1.0,$$

$$K_{g1} = K_{g2} = 1.0,$$

$$T_{p1} = T_{p2} = 20 \text{ s}$$

$$D_1 = D_2 = 0.00833 \text{ p.u. MW/Hz},$$

$$R_1 = R_2 = 2.4 \text{ Hz/p.u. MW},$$

$$B_1 = B_2 = 0.425 \text{ p.u. Mw/Hz},$$

$$M_1 = M_2 = 0.167 \text{ (p.u. MW)}^2,$$

$$a_{12} = -1,$$

$$T_W = 1.0 \text{ s},$$

$$\Delta P_{d1} = \Delta P_{d2} = 0.01 \text{ p.u. MW}.$$

$$P_{\max} = 200 \text{ MW},$$

$$2\pi T_{12} = 0.545 \text{ p.u. MW},$$

$$\delta_1 - \delta_2 = 30^\circ$$

$$K_{dc} = 1.0, T_{dc} = 0.2 \text{ sec}.$$

Data for Three area system

$$P_{r1} = P_{r2} = P_{r3} = 2000\text{MW}$$

$$K_{P1} = K_{P2} = K_{P3} = 120 \text{ Hz / p.u. MW}$$

$$T_{P1} = T_{P2} = T_{P3} = 20 \text{ s}$$

$$K_{r1} = K_{r2} = K_{r3} = 0.5$$

$$T_{r1} = T_{r2} = T_{r3} = 10 \text{ s}$$

$$T_{G1} = T_{G2} = T_{G3} = 0.08 \text{ s}$$

$$T_{T1} = T_{T2} = T_{T3} = 0.3 \text{ s}$$

$$R_1=R_2=R_3= 2.4 \text{ Hz/ p.u. MW}$$

$$B_1=B_2=B_3= 0.425 \text{ p.u. MW/Hz}$$

$$D_1=D_2=D_3=8.33 \times 10^{-3} \text{ p.u. MW/Hz}$$

$$T_{12} = T_{23} = T_{31} = 0.08674 \text{ p.u. MW/ rad}$$