case89pegase $\partial p/\partial \theta$ (at NR sol.) case89pegase $\partial q/\partial \theta$ (at NR sol.) index eq. -5000 60 - 2500 -250 20 20 -500 -2500 5000 -750 20 60 20 60 est. $\partial p/\partial \theta$ (rel. err.:0.189%) est. $\partial q/\partial \theta$ (rel. err.: 0.039%) **Bus index** 60 40 20 -5000 60 -2500 -250 20 -500 -2500 5000 -750 20 60 20 60 Bus index i Bus index i