

Aircraft parameters: structural mass fraction = 0.53; battery energy density = 400 Wh/kg; cruising speed = 150 mph
8 rotors; 5 rotor blades; mean lift coefficient = 1.0; autonomy enabled. Tilt rotor (Boeing) configuration.
Sizing mission (piloted): range = 50 nm; 3 passengers; 120s hover time; reserve type = FAA helicopter VFR (20-minute loiter)
Revenue mission (piloted): range = 30 nm; 2.0 passengers; 30s hover time; no reserve; charger power = 200 kW
Deadhead mission (autonomous): range = 30 nm; 0.0 passengers; 30s hover time; no reserve; deadhead ratio = 0.2

