We find the area of the wire loop first.

$$0.55m = 2\pi r$$

$$r = \frac{0.55m}{2\pi} = 8.75 \cdot 10^{-2} m$$

$$A_{loop} = \pi r^2 = 2.4 \cdot 10^{-2} m^2$$

Now that we know the area, we can compute the change in flux and induced emf.

$$|\varepsilon| = \left|\frac{d\varphi_B}{dt}\right| = \left|\frac{d}{dt}\left(BA_{loop}\right)\right| = A_{loop}\frac{dB}{dt} = 2.8 \cdot 10^{-4} Tm^2$$

The power will depend on the resistance of the wire.

$$R = \rho_{Cu}\frac{L}{A_{wire}} = 1.2 \cdot 10^{-2}\Omega$$

$$P = \frac{\varepsilon^2}{R} = 6.5 \cdot 10^{-6} W$$