$$24V - i_2 \cdot 3k\Omega - v_{dep\ src} = 0V$$

or

$$v_{dep\ src} = 24V - i_2 \cdot 3k\Omega$$

$$= 24V + 2mA \cdot 3k\Omega$$

$$v_{dep\ src} = 30V$$

The power (dissipated) is $i \cdot v$:

$$p = i \cdot v = i_2 \cdot 30V = -2mA \cdot 30V$$

$$\boxed{p = -60mW}$$