

Concept Question 5-10: For the capacitor, can $p(t)$ be negative? Can $w(t)$ be negative? Explain.

If $p(t)$ is positive, it means the capacitor is charging up, and if it is negative, it means the capacitor is discharging, so $p(t)$ can be both positive and negative. Energy $w(t)$ is the energy stored in the capacitor, so it cannot be negative.