27. (a) In the first case $U = q^2/2C$, and in the second case $U = 2(q/2)^2/2C = q^2/4C$. So the energy is now $4.0\,\text{J}/2 = 2.0\,\text{J}$.

(b) It becomes the thermal energy generated in the wire connecting the capacitors during the discharging process (although a small fraction of it is probably radiated away in the form of radio waves).