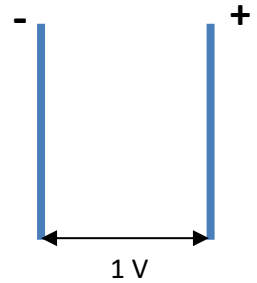## CONCEPT: THE ELECTRONVOLT

● Suppose two plates of equal & opposite charge have a potential difference of 1V   →

     - Electron moves from one plate to another, the potential difference is _____

     → Change in Potential Energy is _____ (_____ → _____)

        −   +

                        1 V

● 1 eV is called an ELECTRONVOLT

     → 1 eV = $(1.6 \times 10^{-19}C)(1V) = 1.6 \times 10^{-19}J$

     - Electronvolt = Change in potential energy of ONE electron through ONE volt.

     - Just a different unit of energy for small charges!

EXAMPLE: What is the speed of an electron with 150 eV of kinetic energy?