

Transformers

Key to efficient power distribution

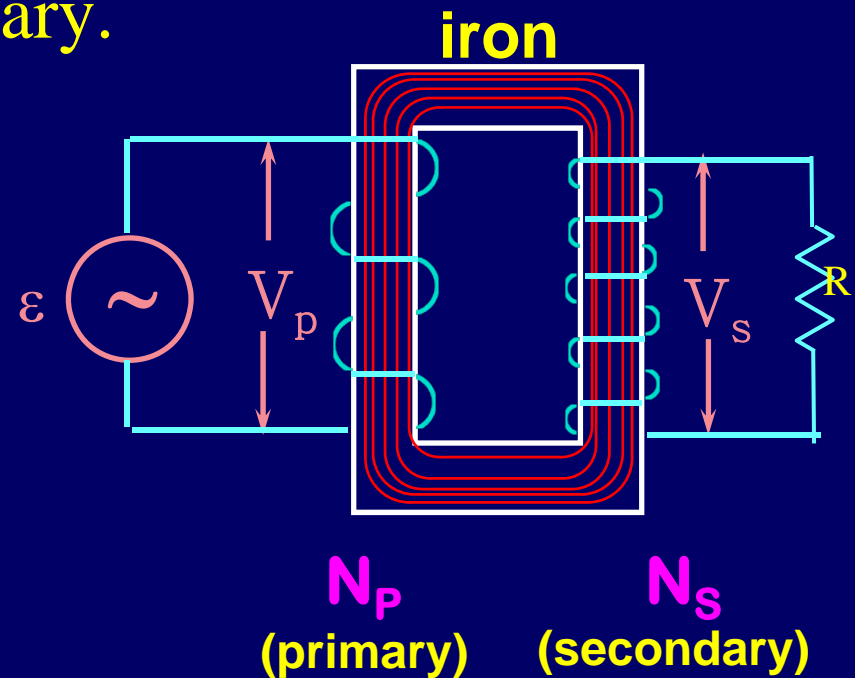
Increasing current in primary creates an increase in flux through primary and secondary.

$$V_p = -N_p \frac{\Delta\Phi}{\Delta t}$$

$$V_s = -N_s \frac{\Delta\Phi}{\Delta t}$$

Same $\Delta\Phi/\Delta t$

$$\frac{V_s}{V_p} = \frac{N_s}{N_p}$$



Energy conservation! $I_p V_p = I_s V_s$