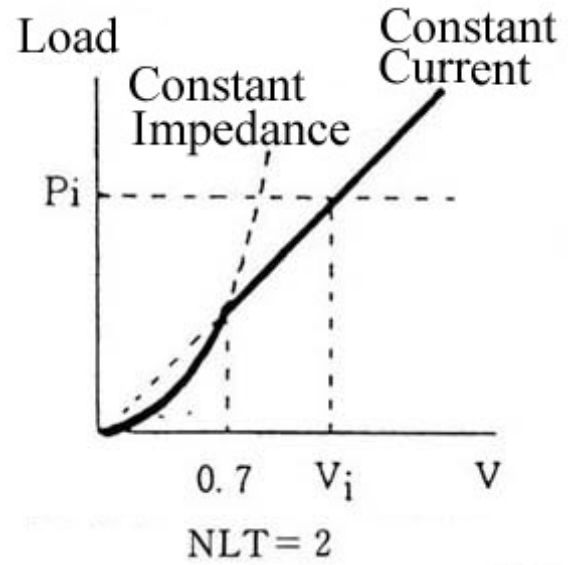
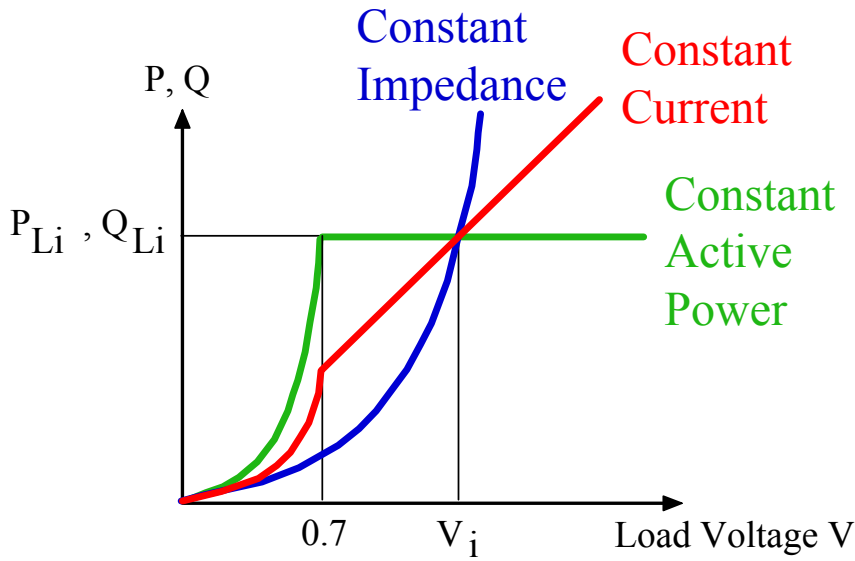


Load Characteristic (NLT=2)



Active Power Load P_L

$$\text{Load Voltage } V \geq 0.7 \text{ [pu]}, \quad P_L = P_i \left(\frac{V}{V_i} \right) \left(1 + \Delta f \cdot \frac{\beta}{100} \right) \quad \text{Constant Current}$$

$$V < 0.7 \text{ [pu]}, \quad P_L = P_i \left(\frac{V}{V_i} \right)^2 \left(1 + \Delta f \cdot \frac{\beta}{100} \right) \quad \text{Constant Impedance}$$

Reactive Power Load Q_L

$$\text{No relation to Load Voltage } V \quad Q_L = Q_i \left(\frac{V}{V_i} \right)^2 \quad \text{Constant Impedance}$$

where,

P_i : Initial Active Power Load [pu]

Q_i : Initial Reactive Power Load [pu]

V_i : Initial Load Voltage [pu]

β : Frequency Bias [% / Hz]

Δf : Frequency Deviation [Hz]

Fig. 1.4 Load Model (NLT = 2)