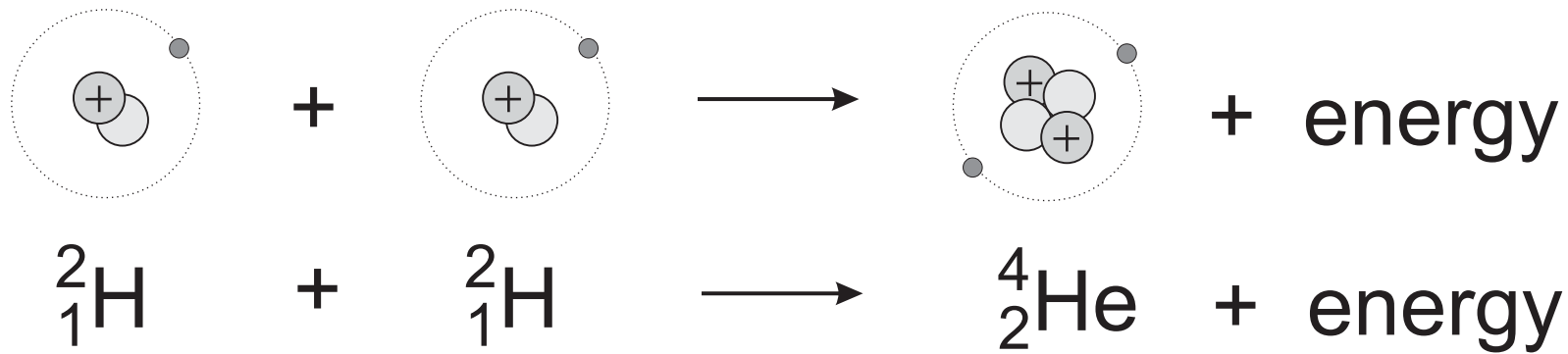


# Mass equals Energy



200 g hydrogen = 199 g helium + 1 g mass defect  
the **mass defect** of 1 g is transformed into **energy**

$$\text{Einstein equation: } E = m \times c^2$$

E = energy

m = mass

c = speed of light = 300,000,000 m/s

$$0.001 \text{ kg} \times (300,000,000 \text{ m/s})^2 = 25,000,000 \text{ kWh}$$

That would be enough to provide a city like Bangalore with energy for 10 years.