2). 1. The User Consumes 400 Units per month (Total Consumption)

2. The User Wants to limit their grid usage to 200 units
   as the only first 200 Units are free.

3. If grid usage exceeds 200 units, the entire grid
   Consumption will cost 12/unit.

4. To avoid this, the user plans to use an alternative
   energy Source for 200 units Costing 15/unit.

Sol)

   Total Consumption = 400 units

Cost without alternative Source
_____

   User relies entirely on the grid for 400 units

1. Grid Consumption exceeds the free limit (200 units)

2. The government rule if you exceeds 200 units
   you need to pay 12$ for all units (not just excess)

   Cost = total Consumption × Grid Cost per unit

Cost without alternative Source = 400 × 12

                                 = 4800

Cost with alternative source

Grid usage: The first 200 units are free.

→ Remaining 200 units are powered by the alternative source cost 15$ per unit

$$\boxed{\text{Cost of grid electricity} = 200 \text{ units} \times 0\text{₹} = ₹0}$$

Cost of alternative source = Alternative usage × Alt cost per unit

$$\boxed{\text{alternative source cost} = 200 \times 15 = 3000}$$

total cost with alternative source = Grid cost + alternative source cost

$$\boxed{\text{Total cost with alternative source} = 0 + 3000 = 3000}$$

Savings

Savings = cost without alternative sour − Total cost with alternative source

$$\boxed{\text{Savings} = 4800 - 3000 = 1800}$$

$$\boxed{\text{Savings} = 1800}$$

→ If they user uses only goud they pay 4800 ₹

→ If they uses the goud for 200 units (free) and the alternative source for 200 units they pay 3000 ₹

→ Savings of 1800 ₹ per month