

```
# inputs
units_consumed = 180
is_senior_citizen = True
has_solar_panel = True
payment_mode = "online"

# Base charge per unit (tiered billing)
if units_consumed <= 100:
    base_bill = units_consumed * 3
elif units_consumed <= 300:
    base_bill = 100 * 3 + (units_consumed - 100) * 5
else:
    base_bill = 100 * 3 + 200 * 5 + (units_consumed - 300) * 8

# Senior citizen discount
if is_senior_citizen:
    base_bill *= 0.9 # 10% discount

# Solar panel benefit
if has_solar_panel:
    if units_consumed <= 250:
        base_bill -= 500
    else:
        base_bill -= 300

# Payment mode surcharge
if payment_mode == "offline":
    if base_bill > 1000:
        base_bill += 50
    else:
        base_bill += 100

# Minimum payable amount
final_bill = max(base_bill, 200)

# Print final bill
print("Final electricity bill:", final_bill)

# Repeat for other use cases by changing inputs
units_consumed = 350
is_senior_citizen = False
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```
is_senior_citizen = False
has_solar_panel = True
payment_mode = "offline"

# Base charge per unit (tiered billing)
if units_consumed <= 100:
    base_bill = units_consumed * 3
elif units_consumed <= 300:
    base_bill = 100 * 3 + (units_consumed - 100) * 5
else:
    base_bill = 100 * 3 + 200 * 5 + (units_consumed - 300) * 8

# Senior citizen discount
if is_senior_citizen:
    base_bill *= 0.9

# Solar panel benefit
if has_solar_panel:
    if units_consumed <= 250:
        base_bill -= 500
    else:
        base_bill -= 300

# Payment mode surcharge
if payment_mode == "offline":
    if base_bill > 1000:
        base_bill += 50
    else:
        base_bill += 100

# Minimum payable amount
final_bill = max(base_bill, 200)
print("Final electricity bill:", final_bill)

# Third use case
units_consumed = 90
is_senior_citizen = True
has_solar_panel = False
payment_mode = "offline"

# Base charge per unit (tiered billing)
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# Minimum payable amount
final_bill = max(base_bill, 200)
print("Final electricity bill:", final_bill)

# Third use case
units_consumed = 90
is_senior_citizen = True
has_solar_panel = False
payment_mode = "offline"

# Base charge per unit (tiered billing)
if units_consumed <= 100:
    base_bill = units_consumed * 3
elif units_consumed <= 300:
    base_bill = 100 * 3 + (units_consumed - 100) * 5
else:
    base_bill = 100 * 3 + 200 * 5 + (units_consumed - 300) * 8

# Senior citizen discount
if is_senior_citizen:
    base_bill *= 0.9

# Solar panel benefit
if has_solar_panel:
    if units_consumed <= 250:
        base_bill -= 500
    else:
        base_bill -= 300

# Payment mode surcharge
if payment_mode == "offline":
    if base_bill > 1000:
        base_bill += 50
    else:
        base_bill += 100

# Minimum payable amount
final_bill = max(base_bill, 200)
print("Final electricity bill:", final_bill)
```

Final electricity bill: 200

Final electricity bill: 1450

Final electricity bill: 343.0