```python
import matplotlib.pyplot as plt

solar_total = float(input('What is the total cost of the solar system? '))
solar_total *= -0.74
solar_total4 = solar_total
solar_total55 = solar_total
solar_total4_list = []
solar_total55_list = []
solar_monthly = float(input("What is the solar monthly cost? "))
solar_yearly = solar_monthly * 12
utility_monthly = float(input("What is the current monthly cost of electricity? "))
print('\n')
# offset = float(input('How much of the bill will be offset (as a decimal)? '))
utility_yearly = utility_monthly * 12
growth_rate4 = 1.04
growth_rate55 = 1.055
num_years = 25
utility_yearly_list4 = []
running_yearly4 = utility_yearly
running_yearly55 = utility_yearly
utility_yearly_list55 = []
solar_yearly_list = [solar_yearly]*20
for num in range(0,5):
    solar_yearly_list.append(0)
year_list = []
net_savings4_list = []
net_savings55_list = []
net_savings4 = 0
net_savings55 = 0

for num in range(1,num_years+1):
    year_list.append(num)

for year in range(len(year_list)):
    running_yearly4 = running_yearly4
    utility_yearly_list4.append(running_yearly4)
    net_savings4 += (running_yearly4 - solar_yearly_list[year])
    net_savings4 = net_savings4
    net_savings4_list.append(net_savings4)
    solar_total4 += running_yearly4
    solar_total4_list.append(solar_total4)
    running_yearly4 *= growth_rate4

    running_yearly55 = running_yearly55
    utility_yearly_list55.append(running_yearly55)
    net_savings55 += (running_yearly55 - solar_yearly_list[year])
    net_savings55 = net_savings55
    net_savings55_list.append(net_savings55)
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    solar_total55 += running_yearly55
    solar_total55_list.append(solar_total55)
    running_yearly55 *= growth_rate55


for num in range(len(year_list)):
    print('Year',str(year_list[num])+':\nSolar
    Cost:',solar_yearly_list[num],'\nElectricity Cost @
    4%:',round(utility_yearly_list4[num],2),'\nElectricity Cost @
    5.5%:',round(utility_yearly_list55[num],2),'\nSavings @
    4%:',round(net_savings4_list[num],2),'\nSavings @
    5.5%:',round(net_savings55_list[num],2),'\nCash Savings @
    4%:',round(solar_total4_list[num],2),'\nCash Savings @
    5.5%:',round(solar_total55_list[num],2),'\n')

plt.plot(year_list,utility_yearly_list4, label = "Utility @ 4% growth")
plt.plot(year_list,utility_yearly_list55, label = 'Utility @ 5.5%
growth')
plt.plot(year_list,solar_yearly_list, label = 'Solar')
plt.title('Utility vs. Solar Yearly Costs Over 25 Years')
plt.xlabel('Years')
plt.ylabel('$$$')
plt.grid(True)
plt.legend()
plt.show()
plt.clf()

plt.plot(year_list,net_savings4_list, label = 'Savings @ 4% growth')
plt.plot(year_list,net_savings55_list, label = 'Savings @ 5.5% growth')
plt.title('Savings With Solar Over 25 Years')
plt.xlabel('Years')
plt.ylabel('$$$')
plt.grid(True)
plt.legend()
plt.show()
plt.clf()

plt.plot(year_list,solar_total4_list, label = 'Solar Payoff @ 4% growth')
plt.plot(year_list,solar_total55_list, label = 'Solar Payoff @ 5.5%
growth')
plt.title('Solar Cash Payoff Period')
plt.xlabel('Years')
plt.ylabel('$$$')
plt.grid(True)
plt.legend()
plt.show()
plt.clf()

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