Apply Defaults

Pool Name: *Typical Residential Pool*

Pool Cover and Pool Heater Energy Savings

Developed by ICF International, Inc.

Southern California Gas Company — A Sempra Energy utility

Weather Data

Airport or Climate Zone	Burbank-Glendale
Simulation Year	CACZ09
	2016

Pool Specifications

		Recommended Values
Pool Type	Residential Pool	
Area (sq. ft.)	500	600
Average Depth (ft)	4.50	4.50
Desired Temperature (F)	80	80
Solar Shading Factor	10%	30%
Wind Shielding Factor	50%	50%
Pool Activity Factor	0.50	0.50

Pool Hours

Annual Opening Day	1/1/2016	1/1/2016
Annual Closing Day	12/31/2016	12/31/2016
Start of Summer Hours	5/1/2016	5/1/2016
Start of Winter Hours	10/1/2016	10/1/2016
Summer Opening Time	12:00 PM	12:00:00 PM
Summer Closing Time	6:00 PM	8:00:00 PM
Winter Opening Time	12:00 PM	12:00:00 PM
Winter Closing Time	4:00 PM	12:00:00 PM

Pool Heater Specifications

		Recommended Values
Pool Heater Capacity (kBtuh)	300	270
Existing Thermal Efficiency (HHV, %)	82	82
Proposed Thermal Efficiency (HHV, %)	85	82
Annual Start Day	5/1/2016	1/1/2016
Annual End Day	9/30/2016	12/31/2016

Pool Cover Specifications

Existing Cover Type	None	
Existing R-Value (hr-ft^2-F/Btu)	0	0
Existing Coverage (% of area)	0%	0%
Proposed Cover Type	None	
Proposed R-Value (hr-ft^2-F/Btu)	0	0
Proposed Coverage (% of area)	0%	0%

Energy Savings Summary

Pool Heater Gas Usage

Existing Gas Usage (therms/year)	231
Proposed Gas Usage (therms/year)	223
Gas Savings (therms/year)	8
Gas Savings (%)	3.5%

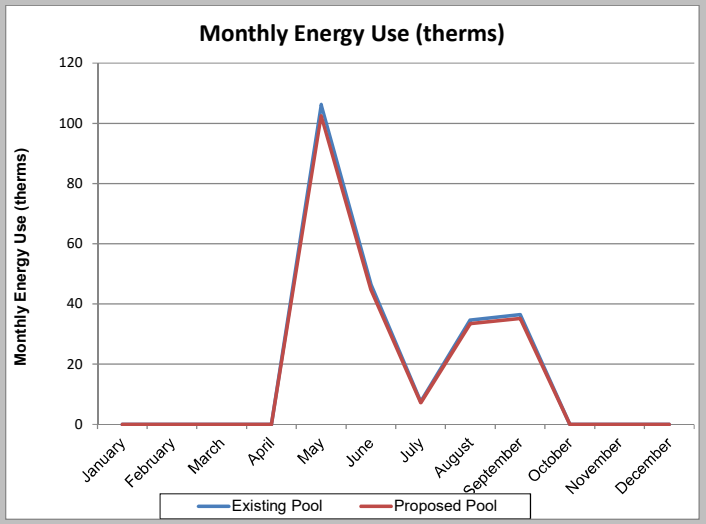
Water Savings Summary

Pool Water Losses

Existing Water Losses (gallons/year)	14,300
Proposed Water Losses (gallons/year)	14,300
Water Savings (gallons/year)	0
Water Savings (%)	0.0%

Pool Energy Use Comparison

Energy Loss	Existing Pool Energy Use (therm/yr)	Proposed Pool Energy Use (therm/yr)	Energy Savings
Evaporation	1,520	1,470	50
Radiation	1,390	1,340	50
Convection	306	296	10
Conduction	5	5	0
Refill	18	18	1
Solar Gain	-2,970	-2,870	-100
Total	273	263	10
Month			
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	106	103	4
June	46	45	2
July	8	7	0
August	35	33	1
September	36	35	1
October	0	0	0
November	0	0	0
December	0	0	0



Apply Defaults

Pool Name: *Typical Residential Pool*

Pool Cover and Pool Heater Energy Savings

Developed by ICF International, Inc.

Southern California Gas Company — A Sempra Energy utility

Weather Data

Airport or Climate Zone	CACZ09
Simulation Year	2016

Pool Specifications

		Recommended Values
Pool Type	Residential Pool	
Area (sq. ft.)	500	600
Average Depth (ft)	4.50	4.50
Desired Temperature (F)	80	80
Solar Shading Factor	10%	30%
Wind Shielding Factor	50%	50%
Pool Activity Factor	0.50	0.50

Pool Hours

Annual Opening Day	1/1/2016	1/1/2016
Annual Closing Day	12/31/2016	12/31/2016
Start of Summer Hours	5/1/2016	5/1/2016
Start of Winter Hours	10/1/2016	10/1/2016
Summer Opening Time	12:00 PM	12:00:00 PM
Summer Closing Time	6:00 PM	8:00:00 PM
Winter Opening Time	12:00 PM	12:00:00 PM
Winter Closing Time	4:00 PM	12:00:00 PM

Pool Heater Specifications

		Recommended Values
Pool Heater Capacity (kBtuh)	300	270
Existing Thermal Efficiency (HHV, %)	82	82
Proposed Thermal Efficiency (HHV, %)	96	82
Annual Start Day	5/1/2016	1/1/2016
Annual End Day	9/30/2016	12/31/2016

Pool Cover Specifications

Existing Cover Type	None	
Existing R-Value (hr-ft^2-F/Btu)	0	0
Existing Coverage (% of area)	0%	0%
Proposed Cover Type	None	
Proposed R-Value (hr-ft^2-F/Btu)	0	0
Proposed Coverage (% of area)	0%	0%

Energy Savings Summary

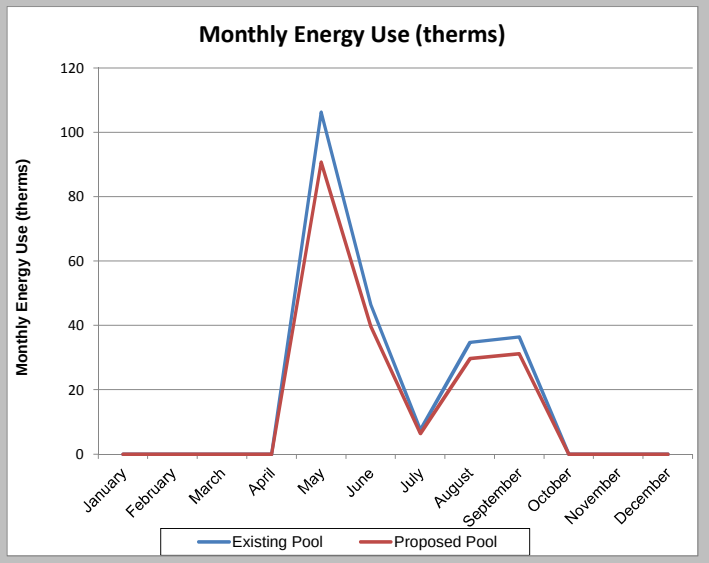
Pool Heater Gas Usage

Existing Gas Usage (therms/year)	231
Proposed Gas Usage (therms/year)	198
Gas Savings (therms/year)	33
Gas Savings (%)	14.3%

Water Savings Summary

Pool Water Losses

Existing Water Losses (gallons/year)	14,300
Proposed Water Losses (gallons/year)	14,300
Water Savings (gallons/year)	0
Water Savings (%)	0.0%

Pool Energy Use Comparison

Energy Loss	Existing Pool Energy Use (therm/yr)	Proposed Pool Energy Use (therm/yr)	Energy Savings
Evaporation	1,520	1,300	220
Radiation	1,390	1,190	200
Convection	306	262	44
Conduction	5	4	1
Refill	18	16	3
Solar Gain	-2,970	-2,540	-430
Total	273	233	40
Month			
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	106	91	15
June	46	40	7
July	8	6	1
August	35	30	5
September	36	31	5
October	0	0	0
November	0	0	0
December	0	0	0