



Land Use Department Building Safety

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Intake Stamp

Renewable Energy Offset Requirements Form

Energy use by swimming pools, spas, and other exterior equipment requiring a building permit such as snow and ice melt systems, and similar outdoor features, must be offset by on-site renewable energy generation equivalent to the energy used. All spas must have an insulated cover.

Exception: Swimming pools equipped with all of the following equipment do not need to offset their energy use by on-site renewable energy sources: solar thermal heating systems (without the use of fossil fuels), high-efficiency two-speed or multi-speed pumps, cartridge filter systems, and an automatic cover.

Use the Energy Usage and Renewable Energy Offset Worksheets on the back of this form to calculate the annual energy usage in BTUs to complete the Renewable Energy Offset Requirements Form.

1	Indoor Swimming pool BTU usage per year	1		
2	Outdoor Seasonal Swimming pool BTU usage per year	2		
3	Spa BTU usage per year	3		
4	Ice Melt System BTU usage per year	4		
5	Other:	5		
6	Other:	6		
7	Add lines 1 through 6 for total BTU usage per year	7		
8	On-site Photovoltaic energy produced in BTUs per year	8		
9	On-site Solar Thermal energy produced in BTUs per year	9		
10	Heat Pump energy offset in BTUs per year (per supplier)	10		
11	Add lines 8 through 10 for total renewable energy offsets in BTUs per year	11		
12	If line 11 is less than line 7, subtract line 11 from line 7 and enter the difference	12		

Please describe any other appliance listed above

Other Appliance Description:

Indoor Pool Energy Usage Calculation Worksheet:

This calculation is based on 12 months per year usage, heated at a maximum of 82°F. Multiply the surface area of the pool in square feet by 116,000 BTU's to get the annual energy use in BTUs.

Enter the Indoor Pool Surface Area in Square Feet	Sq. Ft.
Multiply the indoor pool surface area square footage by 116,000 BTUs	x 116,000
Enter the total on line 1 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Seasonal Outdoor Pool Energy Usage Calculation Worksheet:

This calculation is based on 3 months per year usage, heated at a maximum of 82°F. Multiply the surface area of the pool in square feet by 29,000 BTU's to get the annual energy use in BTUs.

Enter the Outdoor Pool Surface Area in Square Feet	Sq. Ft.
Multiply the Outdoor pool surface area square footage by 29,000 BTUs	x 29,000
Enter the total on line 2 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Spa Energy Usage Calculation Worksheet:

All spas must have an insulated cover. Multiply the surface area of the Spa in Square Feet by 430,000 BTU's to get the annual energy use in BTUs.

Enter the Spa Surface Area in Square Feet	Sq. Ft.
Multiply the spa surface area square footage by 430,000 BTUs	x 430,000
Enter the total on line 3 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Note: The renewable energy to offset a seasonal pool may be produced over 12 months.

Ice Melt Systems Calculation Worksheet

Multiply the Square Feet of heated area by 34,425 BTU's to get the annual energy use in BTUs.

Enter the ice melt systems heated area in Square Feet	Sq. Ft.
Multiply the ice melt systems heated area square footage by 34,425 BTUs	x 34,425
Enter the total on line 4 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Renewable Energy Production Calculations Photovoltaic Systems Energy Production Worksheet:

Multiply the total KWH per year produced by your photovoltaic system by 3,412 to convert to BTU's per year.*

Enter the total KWH per year produced by your photovoltaic system	KWH per year
Multiply the total KWH per year by 3,412 to convert KWH to BTU's per year	x 3,412
Enter the total on line 8 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Solar Thermal Energy Production Worksheet:

Indicate the number and output of solar thermal panels you will provide to offset the necessary BTU's per year.*

Number of Solar Thermal Panels you will provide	Solar Thermal Panels
Multiply Number of Panels by the energy output of each panel per year	x
Enter the total on line 9 of the Renewable Energy Offset Requirements Form	Total BTUs per year

Heat Pump

Heat Pump (for seasonal swimming pools) air source heat pumps and ground source heat pumps, please attach worksheet prepared by system supplier with system specifications necessary to offset the required BTU's per year and enter the offset total on line 10 of the Renewable Energy Offset Requirements Form.

*Do not use more than 280 days per year of solar insulation.