



SDERC

Cool Roofs



San Diego
**REGIONAL
ENERGY
OFFICE**

Technology Description:

Cool Roofs are energy efficient bright white roofs that reflect the sun. Most traditional roofs absorb 70% or more of solar energy striking them. Cool Roofs absorb less than 35% of the sun's energy staying 50° to 60°F cooler during peak summer months.

Solar heat absorbed into a building increases the ambient air temperature in turn increasing air conditioning load required to make the space comfortable. As solar heat gain decreases, air conditioning load decreases.

There are two types of Cool Roofing products: *Coatings* and *Single-Ply*. Most existing commercial/ industrial roof surfaces consist primarily of *Built Up Cap Sheet*, *Modified Bitumen*, *Single-Ply* and *Metal*.

Application:

Cool Roofs are used as an energy saving alternate to standard roofing materials. The Cool Savings with Cool Roofs Program was adopted in 8/2000 via CA Assembly Bill 970.

Benefits:

- Reduced peak electricity demand
- Reduced cooling energy use
- Improved building comfort
- Reduced heat island effect
- Reduced air pollution

Potential Energy Savings:

Installing a cool roof on a 100,000 sq ft building saves \$3,000 in annual cooling costs.

Case Study:

According to the U.S. Department of Energy, energy savings from installing a cool roof equates to approximately 0.25 kWh per sq. ft.

Typical 100,000 sq. ft Cool Roof Installation		
	Cool Roof Coating	Cool Roof Single-Ply
Average Cost	\$113,000	\$225,000
Average Rebate	(\$15,000)	(\$15,000)
Average Final Cost	\$98,000	\$210,000
Average Yearly kWh Savings	.25 kWh per sq. ft. = 25,000 kWh	.25 kWh per sq. ft. = 25,000 kWh



Additional Information:

Rebates are available through CEC Regional Program Administrators such as The San Diego Regional Energy Office at www.sdenenergy.org. For more details on the Cool Roof program, see www.coolroofs.org



Considerations:

When re-roofing a building, it is recommended at least three bids be obtained from licensed contractors. Visit www.coolroofs.org to find a qualified licensed Cool Roof contractor in your area.

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