CHICAGO COOL ROOFS PROGRAM

COOL ROOFS…how they benefit you and the environment

The roof system of a building is an area where significant heat gain occurs, in particular on relatively flat exposures to the sun's position during the warmest period of the day. Dark colored roof surfaces can also contribute significantly to the urban heat island effect and smog formation, leading to increased air pollution. Reflective, light colored "Cool" roofs can not only help reduce cooling costs, but can also have a positive environmental impact by reducing the urban heat island effect. Light colored roof materials and coatings are advantageous over dark colors because of their ability to reflect and radiate energy away from the roof. Here are a few additional cool roof benefits:

- Reduce cooling costs
- Reduce contribution to Urban Heat Island effect
- Increase life cycle of roof
- Reduce maintenance of roof
- Improve occupancy comfort level

HOW A COOL ROOF IS DEFINED…

Cool roofs are characterized by their ability to reflect and radiate a high percentage of the sun's solar flux. This helps prevent the transmittance of heat into the building and the heating of its surroundings, know as "heat island" effect. Cool roofs have been confirmed to be up to 60° degrees Fahrenheit cooler than conventional dark colored roofs.

- Heat Flux: the direct and diffused radiation from the sun received at ground level
- Solar Reflectance: an index between 0 and 1 that expresses the fraction of solar flux that is reflected from the material. The higher the value the more solar energy that is reflected
- Thermal Emittance: is the ratio between 0 and 1 that indicates the energy radiated by a material compared to the energy radiated by a black body at the same temperature. The higher the value the more energy that is radiated away from the material

COOL ROOF GRANTS PROGRAM				
Building Type	Initial Reflectance		Rebate (per square foot)	
	Low Slope[1]	Medium Slope[2]		Soy–base coating
Residential	≥ 0.65	≥ 0.25	$0.50	$0.70
Commercial	≥ 0.65	≥ 0.25	$0.55	$0.75
Industrial	≥ 0.65	≥ 0.25	$0.60	$0.80

- [1]Low Slope Roof: A roof with a surface slope between 0 in 12 and 2 in 12 (0 inch rise in a 12 inch run and 2 inch rise in a 12 inch run) as defined in the Chicago Building Code Section 13 (18-13-303.2.1)

- [2]Medium Slope Roof: A roof with a surface slope over 2 in 12 and up to and including 5 in 12 (over a 2 inch rise in a 12 inch run up to and including a 5 inch rise in a 12 inch run) as defined in the Chicago Building Code Section 13 (18-13-303.2.2)

- To qualify for a low slope grant, the roof slope must meet the slope requirements as specified above and have a roof material or coating system with initial solar reflectance greater than or equal to 0.65, as rated by the Cool Roofs Rating Council or Energy Star

- To qualify for medium slope grant, the roof slope must meet the medium slope requirements and include roof materials or roof coatings with initial solar reflectance grater than or equal to 0.25, as rated by the Cool Roofs Rating Council or Energy Star

How to Apply?

- Download a copy of the application and submit per application **Notes**

- Request an electronic fill form from the Department of Environment at roofgrants@cityofchicgo.org **and submit electronically (preferred)**

- **Questions? Please Call the Department of Environment at (312) 744 – 2994**

Additional Helpful Sites

- Cool Roofs Rating Council: http://www.coolroofs.org/

- Energy Star: http://www.energystar.gov/index.cfm?c=roof_prods.pr_roof_products

- U.S. Environmental Protection Agency: http://www.epa.gov/heatisland/strategies/coolroofs.html