



# Energy Analysis of Cool Roofs for Residential Buildings in a Hot or Dry Climate



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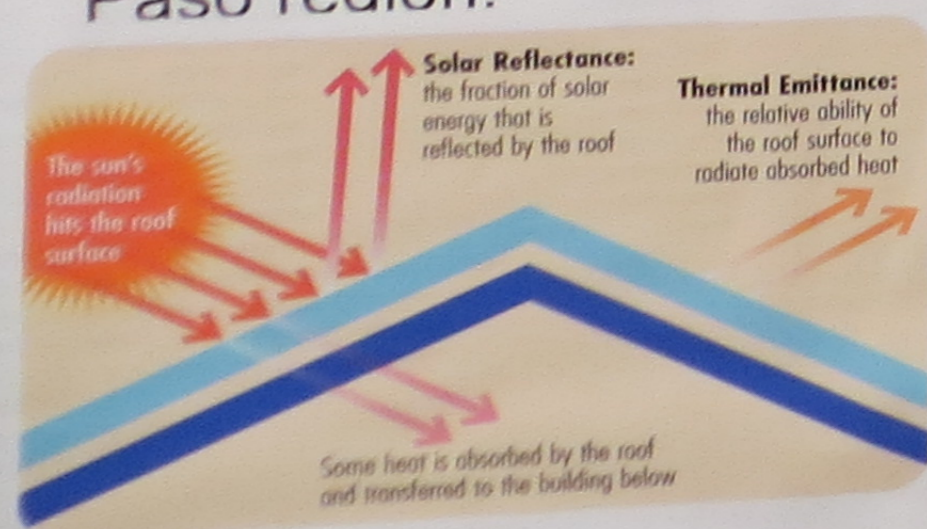
## Introduction

Cool roofs reflect the sun's energy away to significantly reduce surface temperature which reduces energy cost:

- Reduces 15% annually of energy usage
- Reduces residential energy cost by 50%
- Improving occupant comfort.
- Works best in hot climates like El Paso area

## Objectives

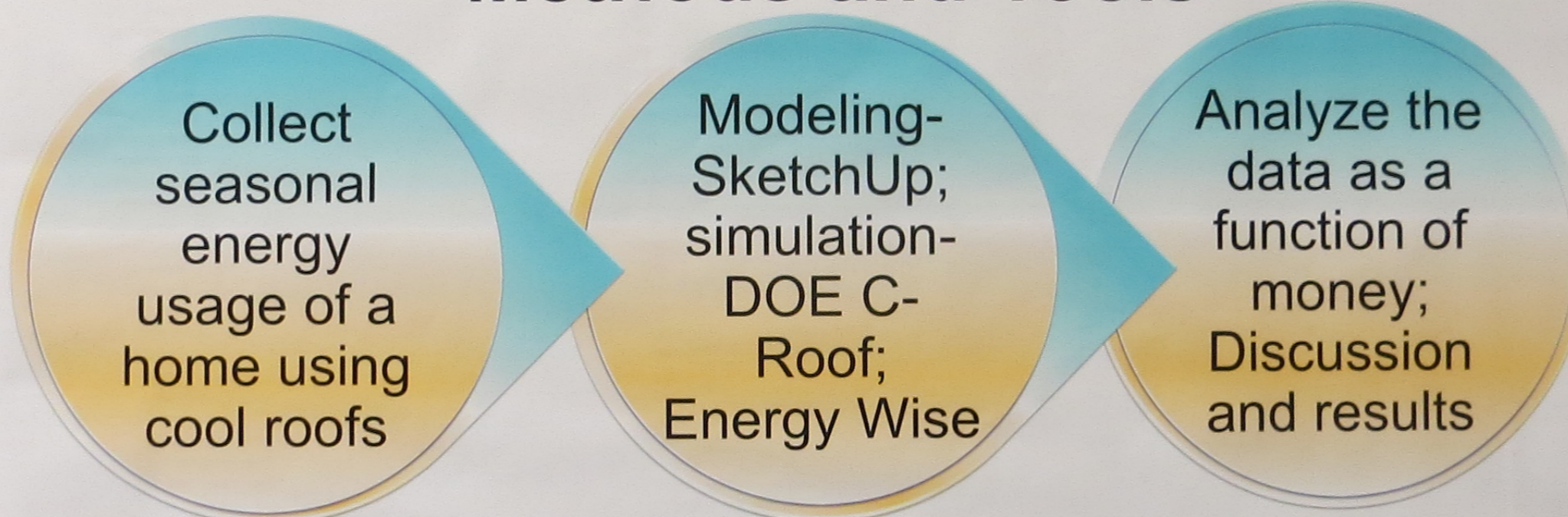
- Effectively analyze cool roof's impact on energy consumption using simulation tools
- Explain the benefits of having cool roofs in the El Paso region.



## Research Question

How can cool roofs save money & reduce energy consumption in hot and dry climates?

## Methods and Tools



## Significance

- Reduce energy cost.
- Reduce emissions
- Positively impacting the community
- Successfully keeps homes cool in hot climate areas

## Expected Results

The energy analysis software will provide computational data from analysis of the cool roofing system

## References

- [http://coolroofs.org/documents/CEU\\_WhatsSoCool.pdf](http://coolroofs.org/documents/CEU_WhatsSoCool.pdf)
- <http://energy.gov/energysaver/cool-roofs>
- <http://www.coolroofs.org>

## Acknowledgment

This project is sponsored by the National Science Foundation, No. DRL-1322600

Pros	Cool Roofs	Cons
<ul style="list-style-type: none"> <li>• Saves money in the summer</li> <li>• Lower emissions</li> <li>• Positive impact on the environment</li> </ul>		<ul style="list-style-type: none"> <li>• Works best in Hot Climates like El Paso</li> <li>• Expensive to convert normal roofs but pays for itself over time</li> </ul>

