How To Make

A Low-Carbon City

Copenhagen will affect the fate of the world, 192 heads of state will determine the next round of issues including global emissions reduction agreement.

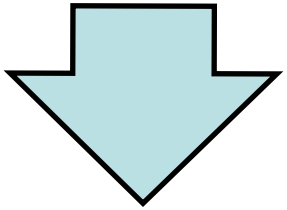
Kyoto Protocol is the ministerial participation.
Copenhagen is the head of state to participate in.

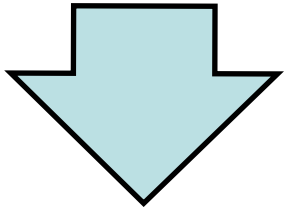
Carbon reduction Earth.

Power is not enough.

Need to be done energizer
(additional generation).
Or save energy (less electricity).

Energy saving VS **Make more energy**





Reduction Carbon emissions

Increased construction Carbon emissions

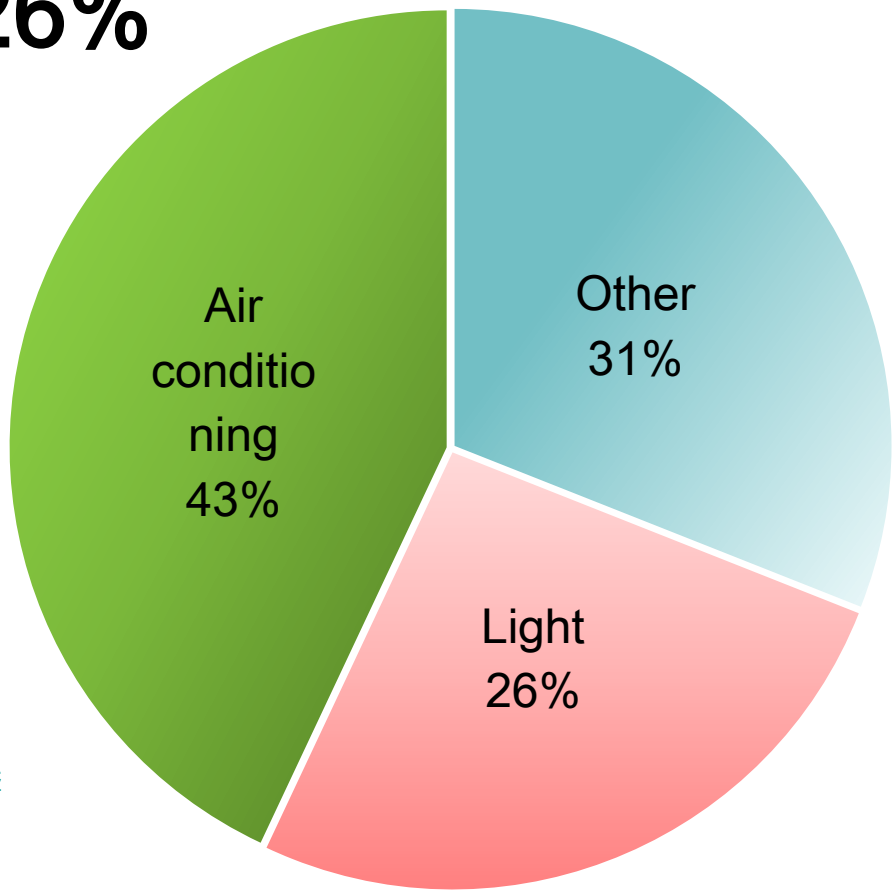
Where the use of building’s Electricity ?

Power consumption buildings

Air conditioning 43%

light 26%

About **70%**



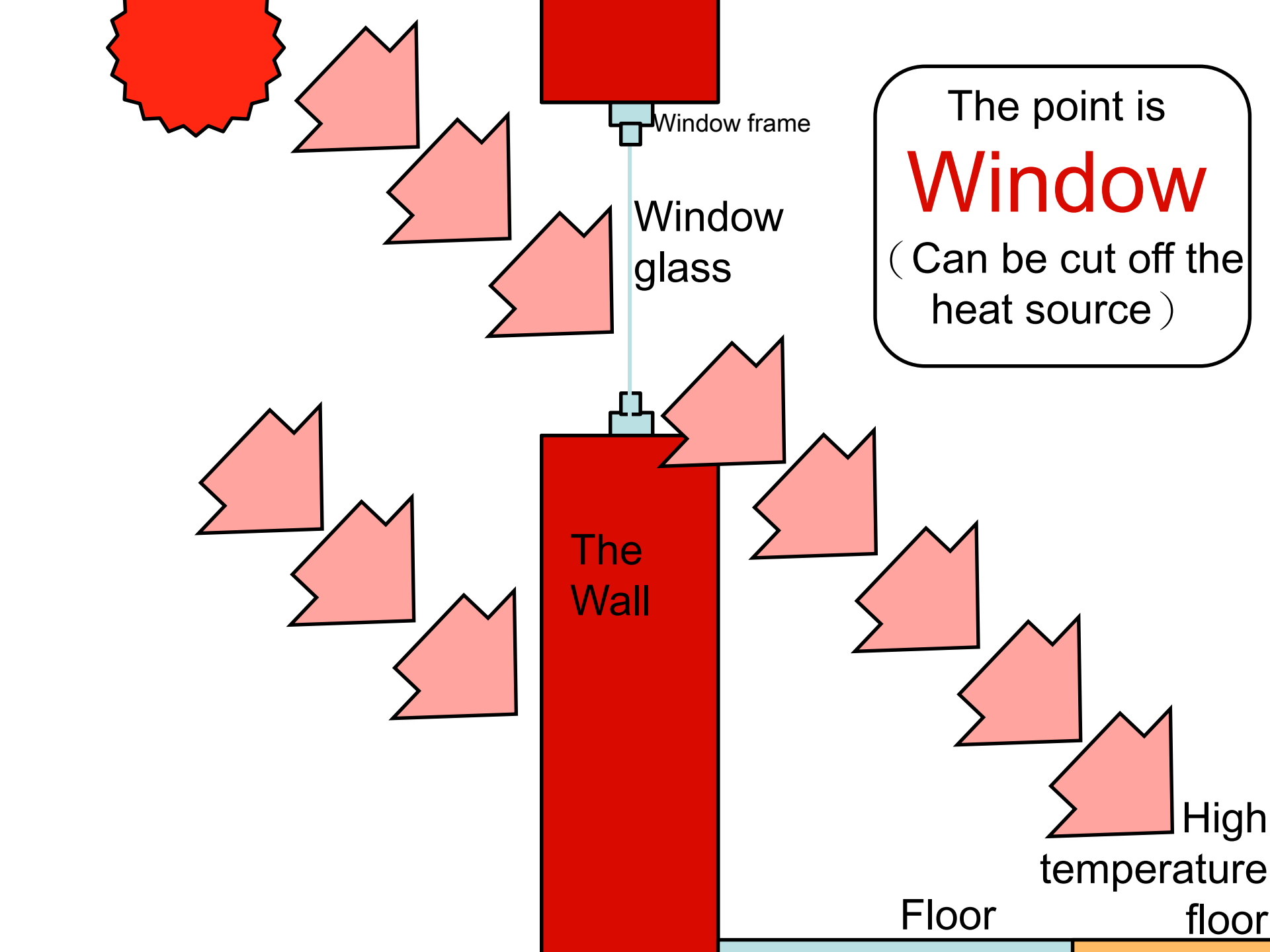
DATA FROM TAIWAN ，Bureau of energy , ministry of economic affairs

http://info.taipower.com.tw/TaipowerWeb//upload/files/2/building_place_electricity.pdf

Why do we need to use air conditioning?

Because solar radiation heats the buildings.

Let us know What the situation is.
As shown


Window frame
Window glass
The point is
Window
(Can be cut off the heat source)
The Wall
High temperature floor
Floor

50% heat is come from the windows to the building?

Window function:

1. Vision Lighting

2. Air convection

If houses without win[illegible]?

Better lighting = More heat ?

How to cut off the heat source and to keep vision, lighting it?

Better lighting = More heat ?

Nano technology good lighting also good insulation

Look at the solar spectrum


We do not need
The sun's heat, mostly from ...
Infrared
Wavelengths between 780 nm to 2500 nm
53%


We do not need
UV light is destructive
Ultraviolet
Wavelengths between 200 nm to 380 nm
3%

What we need,

clear and nice view ....

Visible light（VLT）

Wavelengths between 380 nm to 780nm

44%

1. Visible light（VLT）

2. Infrared 3. Ultraviolet

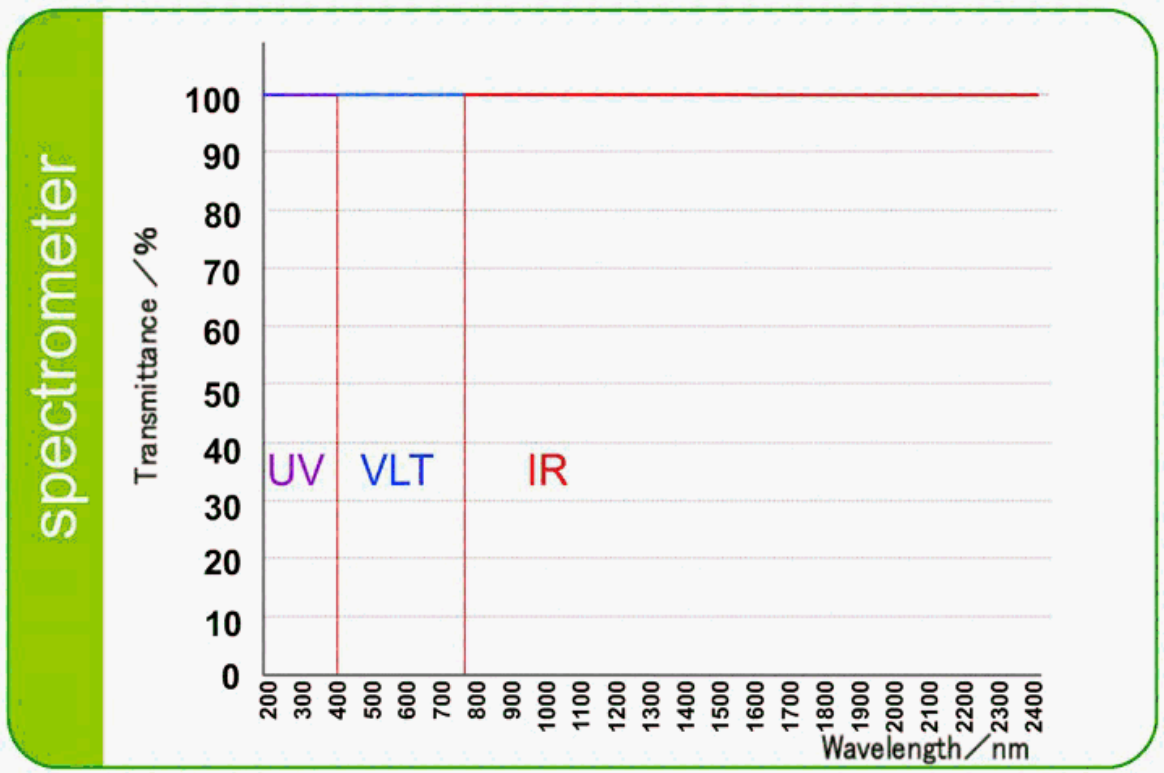
Infrared accounted for 54%,UV 3% ,total of 57%

If can be reduced 90%,

then carry out half of the heat

How do you think?

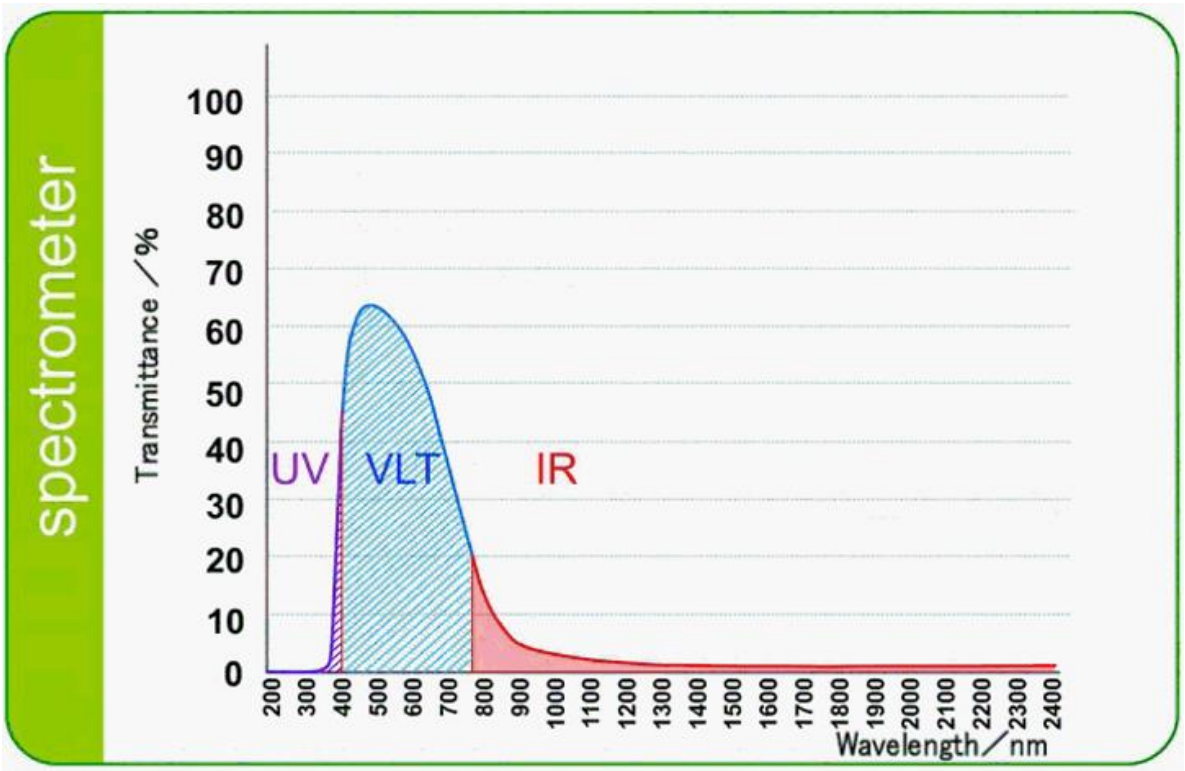
Before installation



Harm full Radiation and UV rays can potentially harm the residents and cut good visible lighting .

Transmittance / Wavelength

After Installing Energy Saving Film



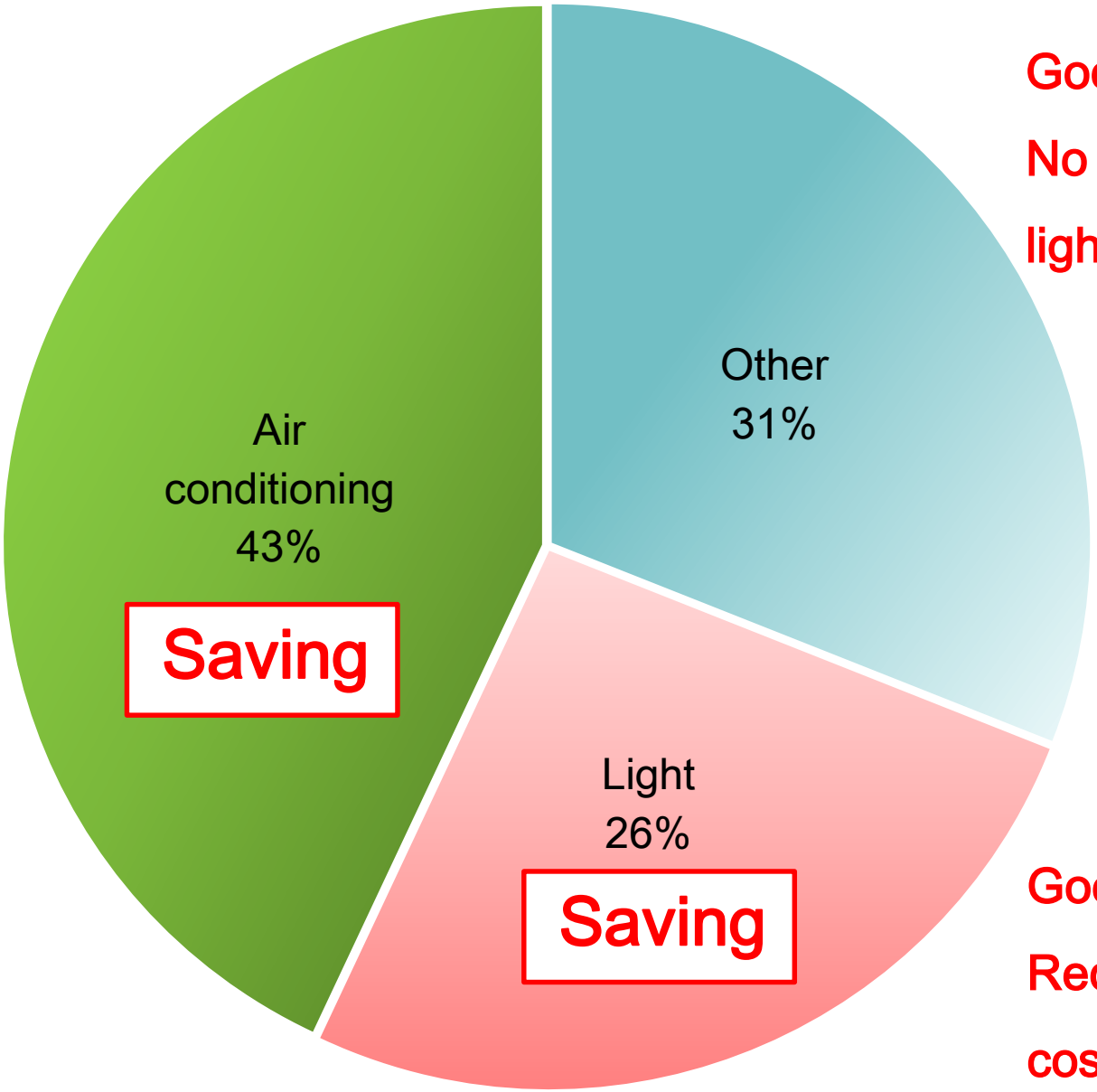
Transmittance / Wavelength

1. Will drastically reduce UV and Solar Radiation

2. And increase safe and good Day light (Visible light)


Installation General Automotive Solar Films


Install building "Energy-saving film"



Good lighting,

No need turn on

lights during the day

Good insulation,

Reduce air-conditioning

cost and save electricity

Old building
(existing buildings)

The best solution

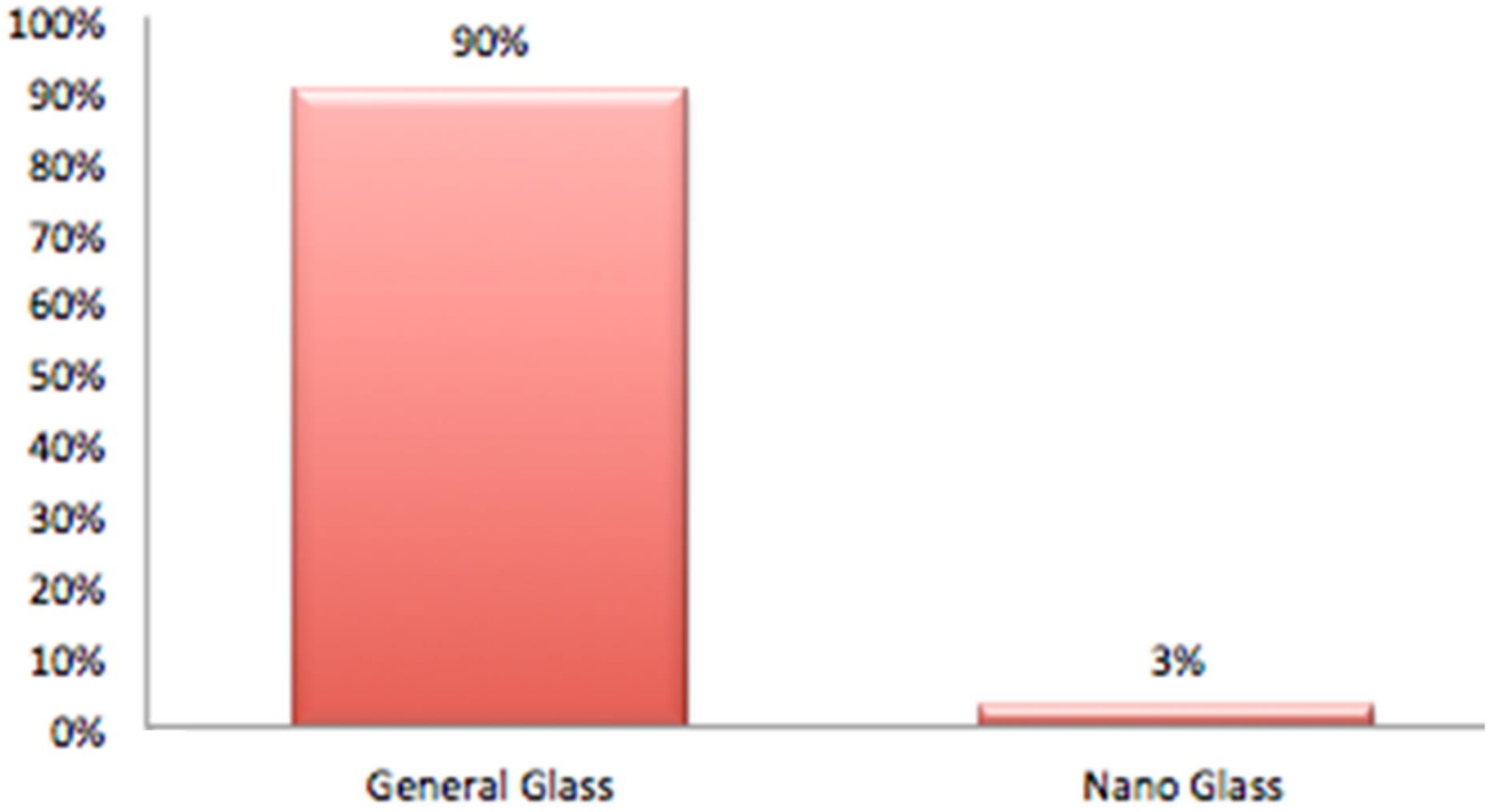
Install energy-saving film

New building

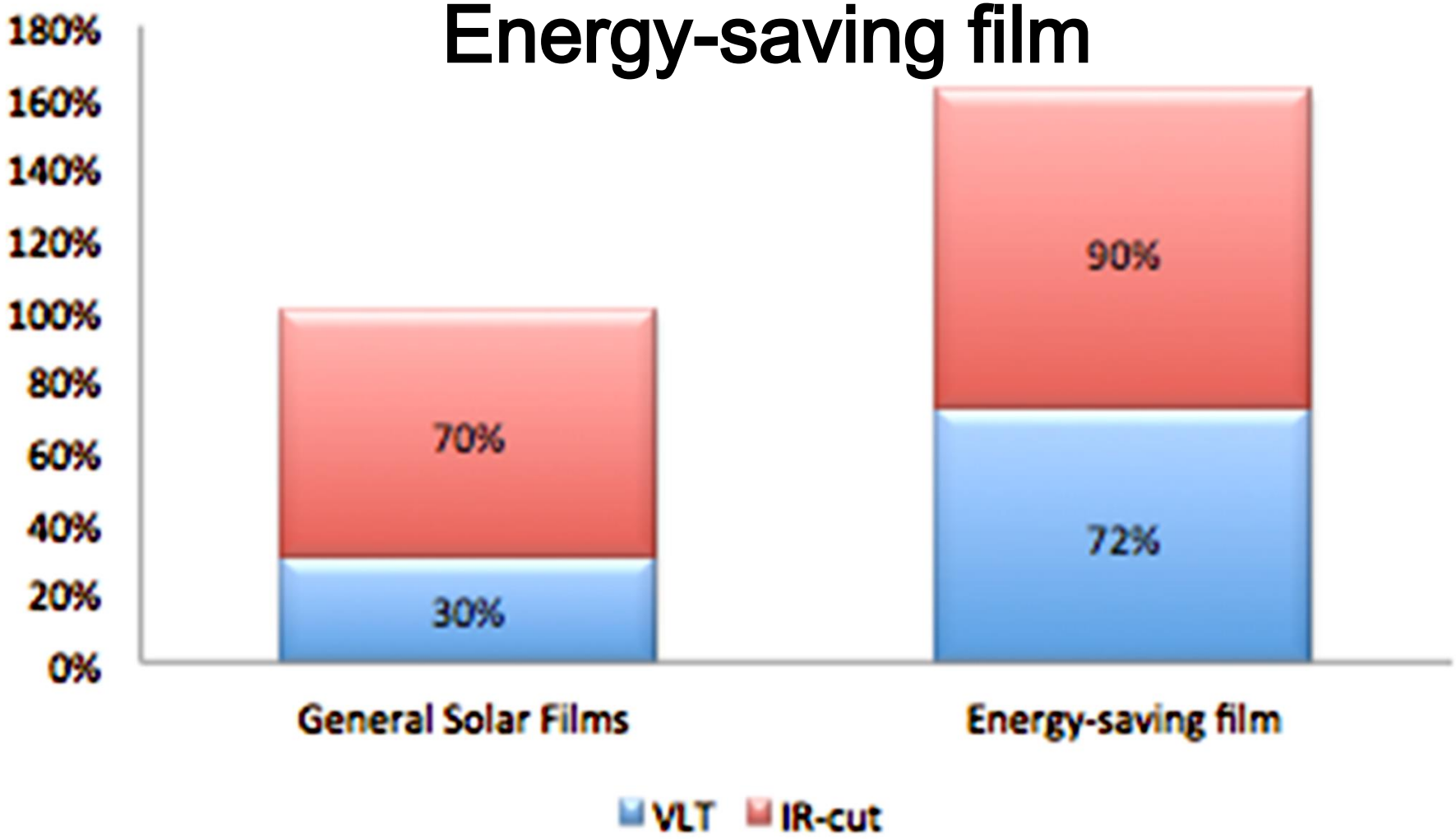
The best solution

Install Nano Glass

Infrared transmittance



General Solar Films
VS
Energy-saving film



Testing Of Energy Saving Film

at Kun Shan University has shown a reduction of more than **30%** in Electricity consumption .

Nano Glass VS Low-E glass

	Nano Glass	Low-E glass
Material	Nano ceramic material win	Sputtered metal
Metal	Oxide Metal win	Metal
Reflective	Non Reflective (NO LIGHT POLIUTTION) win	Reflective (Light pollution)
Environmental	Environmentally friendly win	Not Environmentally friendly
UV-blocking	UV-blocking (SAFE) win	Non UV Blocking (Harmful)
Processes	Low-carbon processes win	High-carbon processes
	Carbon Negative win	Carbon positive

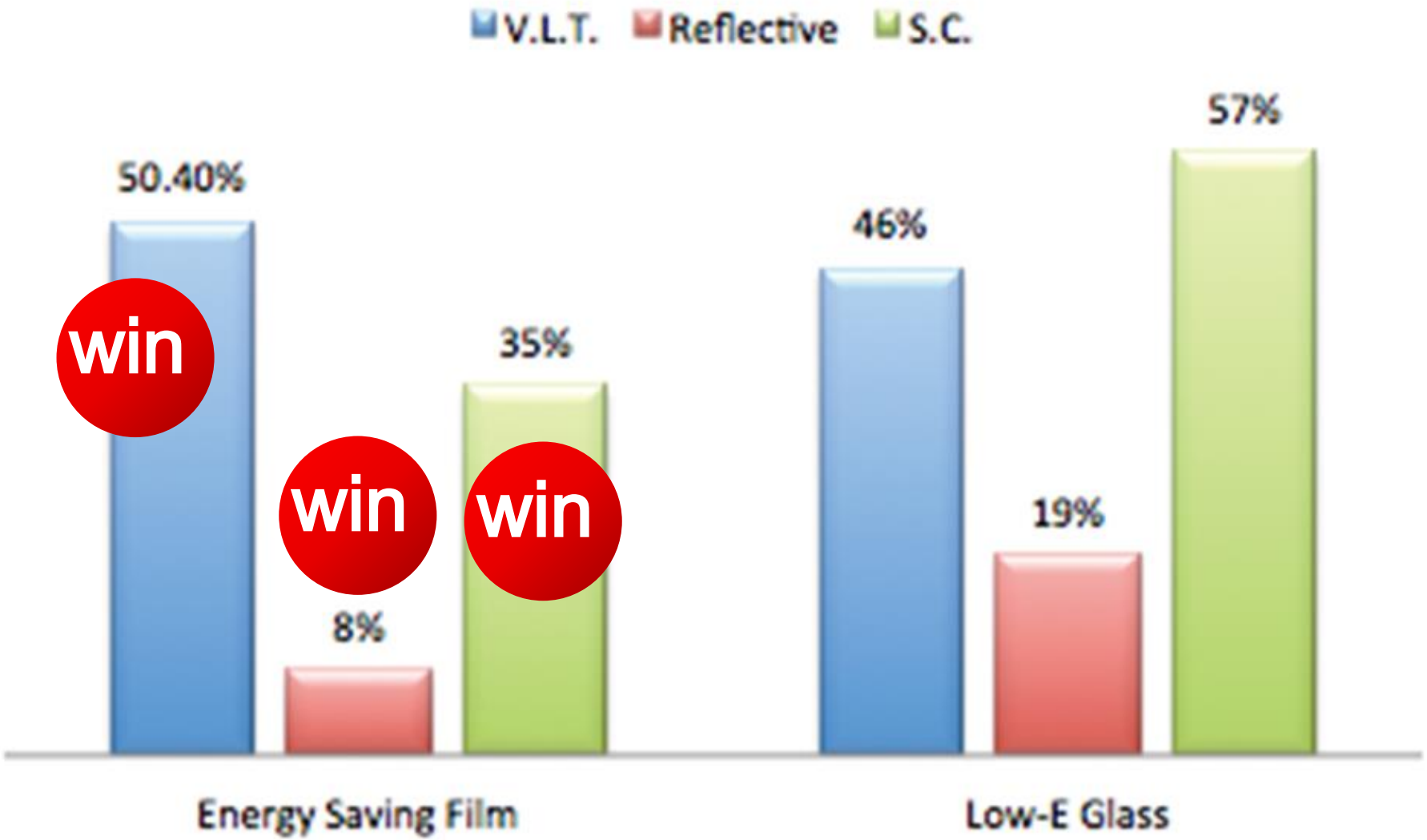
Low-carbon processes

Nano glass process is Low-carbon emission and Eco Friendly

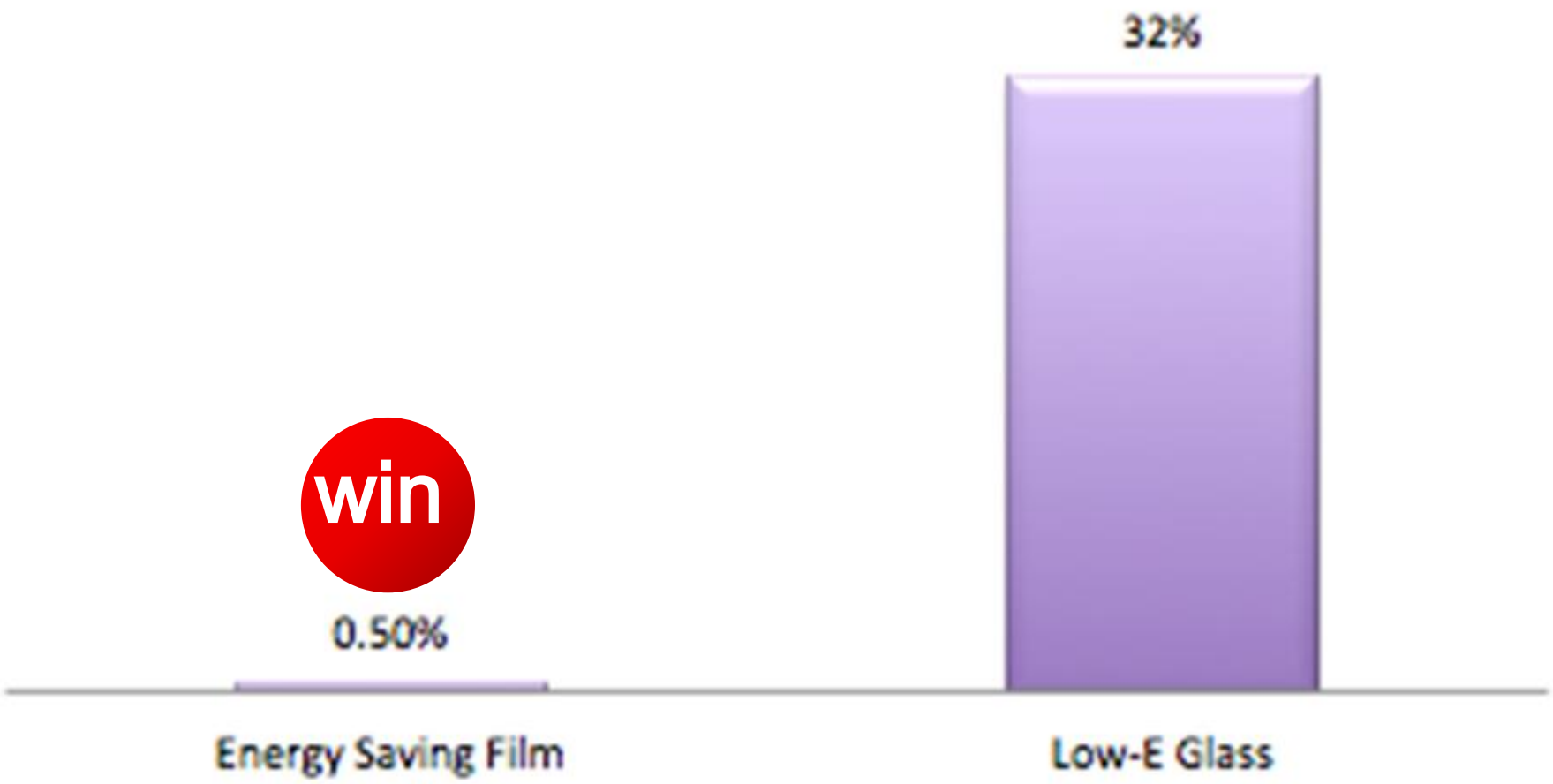
VS

Low-E glass is a High Carbon Emission Process and Not Eco Friendly

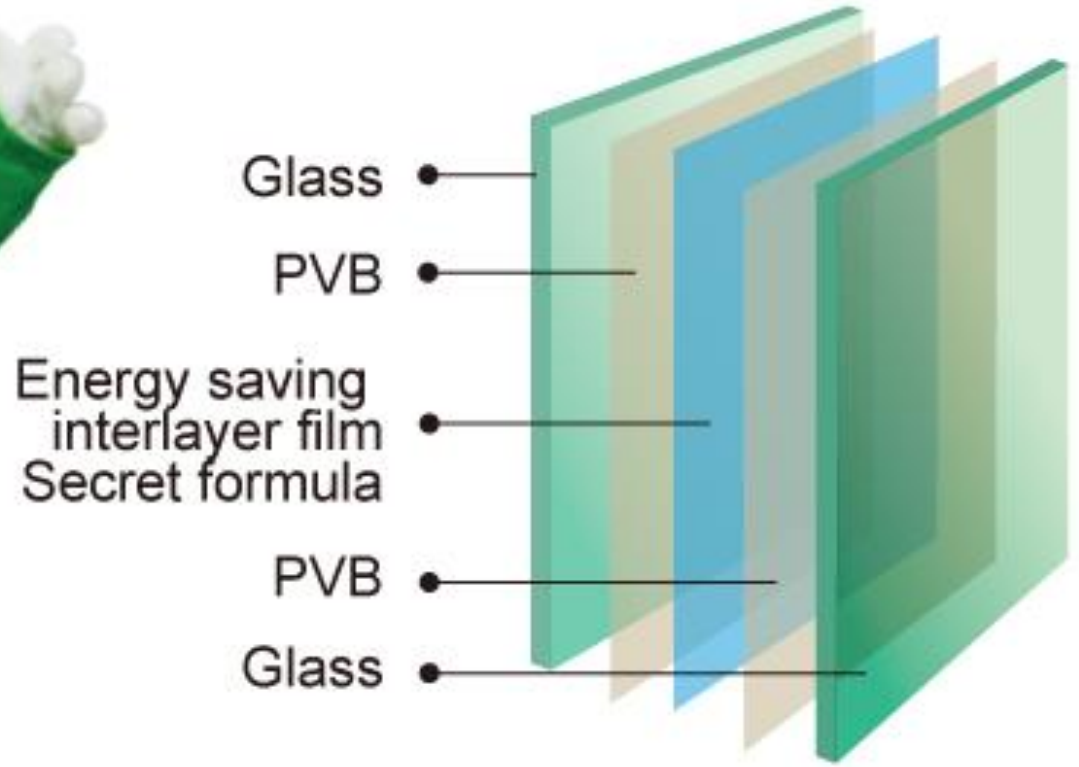
Optical comparator



Ultraviolet



Nano Laminated Glass



Nano Acoustic and Thermal Insulation Glass

Reduce carbon emissions and Save our Environment for future Generations

Every 1 kWh of electricity saved,

We can reduce 0.636 kg of Harmful carbon dioxide emissions

Source: Bureau of Energy, Ministry of Economic Affairs of Taiwan

Every Tree Planted will take 5 years

to Decrease 12 Kg Co2 Emission

"Energy Film"Installed will decrease

more than 2 Tons

of Co2 Emissions within one hour

S.O.S !!

Save our Planet

is our responsibility.

THE END